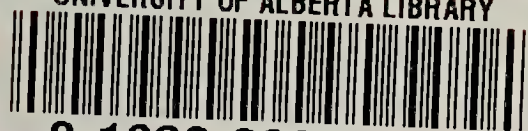


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BLUE JAY

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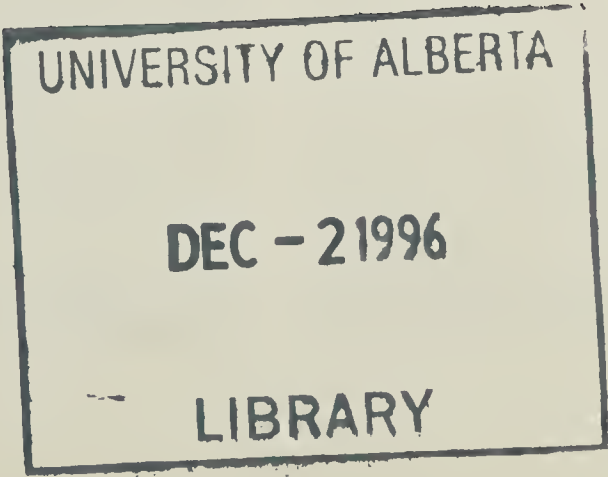
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EDITOR’S MESSAGE

This issue of *Blue Jay* marks the last under my editorship. The reins have been turned over to Roy John of Saskatoon who is in a position, in the short term, to devote a significant amount of time to this fine publication. I wish Roy all the best.

I have very much enjoyed my tenure as *Blue Jay* editor and my only regret is not being able to get the publication back on schedule. I owe a debt of gratitude to the associate editors particularly Bob Nero and Stuart Houston whose advice along the way was helpful. I would also like to acknowledge the myriad of authors and reviewers who contributed immensely to the technical quality of each issue. Curt and Shari, in the Nature Saskatchewan office, Brian and Agnes at Canadian Plains Research Center, and Merit Printing all played an important role in creating the five issues that I edited.

It has been a privilege to serve Nature Saskatchewan over the past year and a half as *Blue Jay* editor and I intend to continue to support the publication over the years to come.

Sincerely
Douglas M. Collister

ADDENDA TO THE KNOWN FLORA OF THE BESNARD LAKE AREA, NORTH-CENTRAL SASKATCHEWAN

MIRANDA M. HART, 316 Arthur Ave., Saskatoon, SK. S7N 1J3 and
VERNON L. HARMS, Fraser Herbarium, University of Saskatchewan,
Agriculture Bldg., 51 Campus Drive, Saskatoon, SK. S7N 5A8.

A recent article by V.L. Harms and Anna Leighton, published in the December 1994 issue of this journal, recorded a known flora of 210 species of vascular plants in the general Besnard Lake area in north-central Saskatchewan.¹ That inventory list was not considered complete but rather a starting point for finding additional records from the area. Subsequently, during the 1995 summer, Miranda Hart made a collection of about 70 plant species from the Besnard Lake area, including 20 species that were in addition to those of the 1994 Harms/Leighton list. These we consider worth reporting, as the brief list below, to add them to the overall list for the area.

The revised summary of plants now recorded for the general Besnard Lake area totals 230 species, of 143 genera, in 60 families of vascular plants, including 15 species of pteridophytes (= ferns and fern-allies), 6 species of coniferous gymnosperms, and 209 species of angiosperms (= flowering plants). Less than 5% (10 of 230) represent introduced species (i.e. either invasive weeds or escaped cultigens; these are indicated by asterisks below).

Among the new additions, the Small White Water-lily (*Nymphaea*

tetragona var. *leibergii*) is a provincially rare species. The present record helps to better bridge the previously apparent gap between more southern and more northern records in boreal Saskatchewan. Three of the new additions represent significant northward extensions of the known species ranges in the province. These are Pink-flowered Onion (*Allium stellatum*), Low Pussytoes (*Antennaria aprica*), and Western Pygmy-flower (*Androsace occidentalis*).

All collection numbers (prefixed with "MH") on the list below are those of Miranda Hart. Verified voucher specimens documenting the below-listed as well as the other Besnard Lake plants are filed in The W.P. Fraser Herbarium (SASK), University of Saskatchewan, Saskatoon, SK.

ASTERACEAE (Aster or Composite Family):

Antennaria aprica Greene - Low Pussytoes. MH-7.

Artemisia campestris L. - Plains or Tall Wormwood. MH-8.

Erigeron glabellus Nutt. - Smooth Fleabane. MH-10.

Taraxacum laevigatum (Willd.) DC. - Red-seeded Dandelion. MH-15

FABACEAE (Legume or Pea Family):
Astragalus agrestis Dougl. (*A. hypoglottis*; *A. danicus*) - Purple Milk-vetch. MH-30.

Trifolium pratense L. - Red Clover.*
MH-34.

LAMIACEAE (Mint Family):
Scutellaria galericulata L. (*S. epifolii-folia*) - Marsh Skullcap. MH-37.

LENTIBULARIACEAE (Bladderwort Family):
Utricularia vulgaris L. - Common or Greater Bladderwort. MH-39.

LILIACEAE (Lily Family):
Allium stellatum Fraser - Pink-flowered or Prairie Onion. MH-40.

NYMPHAEACEAE (Water-lily Family):
Nymphaea tetragona Georgi spp.
leibergii (Morong) Porsild
- Small White Water-lily. MH-50. (R).

POLEMONIACEAE (Phlox Family):
Collomia linearis Nutt. - Narrow-leaved Collomia. MH-60.

PRIMULACEAE (Primrose Family):
Androsace occidentalis Pursh - Western Pygmy-flower; Fairy Candelabra. MH-64.

RANUNCULACEAE (Buttercup Family):
Anemone patens L. (*Pulsatilla ludoviciana*) - Prairie Crocus; Crocus

Anemone; Pasque-flower. MH-74.

Thalictrum venulosum Trel. - Veiny Meadow-rue. MH-79.

ROSACEAE (Rose Family):
Fragaria vesca L. var. *americana*
Porter - American Wood Strawberry.
MH-75.

Potentilla fruticosa L. - Shrubby Cinquefoil. MH-76.

Prunus virginiana L. - Choke Cherry.
MH-80.

Rubus acaulis Michx. - Dwarf or Stemless Raspberry; Arctic Dewberry; Dwarf Nagoonberry. MH-83.

SARRACENIACEAE (Pitcher-plant Family):

Sarracenia purpurea L. - Pitcher-plant. MH-87.

SPARGANIACEAE (Bur-reed Family):
Sparganium minimum Fries - Small Bur-reed. MH-90.

Acknowledgements Thanks are extended to Dr. Gary R. Bortolotti, Biology Department, University of Saskatchewan, for employing the senior author during the 1995 summer at the University's Besnard Lake Field Station.

1. HARMS, Vernon L. and Anna LEIGHTON. 1994. Flora of the Besnard Lake area, north-central Saskatchewan. *Blue Jay* 52:190-199.



WHITE-WINGED DOVE IN THOMPSON, MANITOBA

RUDOLF F. KOES, 135 Rossmere Crescent, Winnipeg, MB. R2K 0G1.

The White-winged Dove, a southern relative of the Mourning Dove, ranges from parts of South America through Central America into the southwestern United States. It is largely resident, although the northernmost breeders retreat south (and east?) for the winter. Given the species' propensity for long-distance wandering, with numerous sightings along the West Coast to Alaska and along the East Coast to the Maritimes and Newfoundland, it could be expected to turn up more frequently than it does in Canada and the central U.S.³ There are only two records for Minnesota (13 October 1985 at Duluth and 15 September 1994 at Hawk Ridge) and none for the Dakotas, Alberta and Saskatchewan.^{3,4,5} A bird captured and banded on 16 August 1995 at Thunder Cape Bird Observatory near Thunder Bay, Ontario was apparently the second for the area.²

On 13 August 1995, Zoe and Ray Irving noted a dove which had landed on a utility wire above their backyard in Thompson. The Irving home is situated in a well-wooded area near the outskirts of town, which in turn is located deep in the boreal forest in north-central Manitoba (55°45'N, 97°51'W). As Mourning Doves are rare in the area, the Irvings' interest was piqued. After careful observation and reference to a field guide, the bird was identified as a White-winged Dove. Local

birder Wally Jansen, compiler of the Thompson Christmas Bird Count, was notified. Although Mr. Jansen was skeptical, he arrived shortly and, after observing the bird as it fed in the backyard, concurred with the identification. He, in turn, notified Robert Parsons in Winnipeg and later that evening word spread through the southern Manitoba birding community.

The next day I phoned the Irvings who confirmed the bird's continued presence. I decided to drive up on the 15th. After reaching Thompson in mid-afternoon I was invited in and installed myself on the screened-in veranda with a good view of the backyard with all its feeders. During the long wait we watched the comings and goings of a flock of grackles and one Yellow-headed Blackbird, a local rarity. Wally Jansen and Ray Irving arrived later and several diagnostic photographs taken on the 13th by Mr. Irving were circulated. Any remaining doubts on my part were erased. But was the bird still around?

At about 5:20 p.m. the dove suddenly landed in the yard. It fed for several minutes on the ground, hopped onto a birdbath where it took a few sips and sat for a moment, and then flew into an aspen bluff behind the house. The bird was not seen again that day. In size and shape it was similar to a Mourning Dove. The identifying features were its greyer



White-winged Dove, Thompson, Manitoba, early September 1995

Ray Irving

plumage, the bold white slash on its wings, the rounded tail with white-tipped outer retrices, a distinct black mark on the lower ear patch, and an area of bluish skin around the eye. The bird showed no sign of having been in captivity.

Over the next few weeks the

White-winged Dove visited the yard daily, frequently in the company of a small flock of grackles and the aforementioned Yellow-headed Blackbird. With fall approaching, and the dove showing no sign of wanting to depart on its own, Mrs. Irving became concerned about its future. Surviving a winter in Thompson would clearly be

out of the question. Wally Jansen constructed a trap and the bird was finally caught on 5 September. The capture was described to me in a most entertaining letter by Mrs. Irving, part of which follows: "Two days later on Tuesday morning Delores, after much deliberation, sashayed her way into the trap. Faced with the moment of truth I folded! My heart beat faster than a chickadee's wing, my middle-aged body broke out in a hot flush and I sank onto the couch calling to Ray, 'Do it quickly, do it quickly.' He was, at the time, engaged in the manly task of tidying his tools, so he had not seen Delores's actions. However, my statement did arouse his interest and he turned to me with a glint in his eye, a readiness to comply and asked 'Do what, my dear?' It was a moment frozen in time. The bird standing centrally under the trap. The trap poised to fall, the string lying inert in my trembling hand. 'Pull the damned string' I croaked in desperation. Being a nimble-minded fellow, Ray changed his orientation in a flash, grabbed the string and pulled. Down came the trap."

Through the kindness of Calm Air, "Delores," as the dove was now called, was transported to Winnipeg on 7 September. The navigator of the flight, on whose lap Delores was travelling in a box, reported that the bird had difficulty reading his map as she only spoke (and read) Spanish. After arrival at the Manitoba Wildlife Rehabilitation Organization facility in Glenlea near Winnipeg, the dove was found to be infected with roundworms — a common affliction — but otherwise in good health. The notion of sending the bird back to the United States, where it had no doubt originated, had to be abandoned due

to export permit problems. In November the dove was placed in the Winnipeg Zoo where it will hopefully enjoy a long and healthy stay.

What brought a White-winged Dove to Thompson remains a mystery. Although there had been a hot and extremely windy period in southern Manitoba a few days before the dove was discovered in Thompson, it seems unlikely that such a strong flier would be blown so far off course. It was more likely a case of reverse migration. The bird had found Thompson, and the Irving's well-stocked backyard, a safe haven, when it accidentally wandered into the vast boreal forest of Manitoba.

Acknowledgements I would like to thank Zoe and Ray Irving for their hospitality during my stay in Thompson and for their concern for the well-being of the dove. Thanks are also due to Wally Jansen for informing the Manitoba Rare Bird Alert and for building the trap, and to Robert Nero and Peter Taylor for their helpful comments on a draft of the manuscript.

1. AMERICAN ORNITHOLOGISTS' UNION. 1983. Check-list of North America birds, 6th ed. Allen Press, Lawrence, KS. 877 pp.
2. BAIN, M. and M. HOLDER (eds.). 1995. Cross Canada round-up. *Birders Journal* 4:220.
3. DE SANTE, D. and P. PYLE. 1986. Distributional checklist of North American birds, vol. 1: United States and Canada. Artemesia Press, Lee Vining, CA. 422 pp.
4. JANSSEN, R.B. 1987. Birds in Minnesota. University of Minnesota Press, Minneapolis, MN. 352 pp.
5. NICOLETTI, F.J. 1995. Minnesota's second White-winged Dove. *Loon* 66:213-214.

SOUTHWARD MIGRATION OF SWAINSON'S HAWKS: OVER 10,000 KM IN 54 DAYS

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Swainson's Hawks that breed in Saskatchewan and Alberta travel more than 10,000 km to spend the austral summer in what we call (erroneously) their "wintering grounds." Taking advantage of north winds and using thermals to soar with minimal energy expenditure, they migrate south in flocks of many thousands and appear to go long distances without food, as lack of feces or wash below their night roosts suggests that they haven't eaten in some time.⁶ In 1972 Neal Smith counted 344,409 Swainson's Hawks passing over Ancon Hill near Panama City in fall migration.⁵ Some hawks arrive on the pampas of Argentina so weak that they have been picked up by hand.³ This paper describes the timing and route of autumn migration of Swainson's Hawks as determined from selected band recoveries and by satellite radio transmitters.

The migration route and "wintering" grounds are known from banding: 547 recoveries of 538 Swainson's Hawks from 14,784 banded throughout North America since 1923.⁴ Each recovery results only when someone, by chance, happens to find a leg band on a dead or injured hawk. A relatively small number of these recoveries offer exact dates of death, such as a bird killed on the highway or shot, to provide precise information on the timing of their southward progress.

Twenty-four recoveries met these criteria: 18 hawks recovered in their hatching year (HY) and 6 recovered in subsequent years (AD) (Figure 1). From Guatemala the earliest band recovery was 7 October, from Colombia 22 October, and from Argentina 15 November. A late hawk was still in Texas when shot on 30 November. Some hawks migrate about a month later than others. However, all of the late birds are young of the year. Although the sample size for adults is small, no adults were reported late on the autumn migration. The migration was calculated as roughly two months in duration.

The average compass direction of travel followed to Argentina is nearly southeast (140°). This direction averages 15° more southerly than the average for smaller birds such as the Tree Swallow.⁷ In terms of longitude, all Swainson's Hawk recoveries in the United States were between 96° W and 105° W, a migration pathway that appears especially narrow in Oklahoma and Texas.

Swainson's Hawks were once subject to considerable pressure from shooting; 60 of the 81 recoveries (74.1%) from hawks banded before 1954 were shot.⁴ Of birds banded since 1955 only 19 of 362 (5.2%) hawks recovered in Canada or the United States had been shot, whereas 44 of 96 (45.8%) of those



Figure 1. Locations and dates of 24 autumn band recoveries of Swainson's Hawks. Squares are hawks banded as nestlings and recovered in their hatching year (HY). Circles are hawks recovered after their first year; only the 22 October sighting in Mexico and the 1 November shooting in Argentina were banded as adults (AD).

Table 1: RECOVERIES OF BANDED SWAINSON'S HAWKS SOUTH OF THE RIO GRANDE

	Country										
How recovered	Mexico	El Salvador	Guatemala	Panama	Venezuela	Colombia	Bolivia	Brazil	Uruguay	Argentina	Total
Found dead	2		1			1		2	1	18	25
Shot	7	3	4			14	1	2		15	46
Injured	1							1		5	7
In trap										1	1
By dog	1										1
By disease										1	1
In building		1									1
By hand	2		1	1		1		1		3	9
Exhausted										1	1
Telescope	1									1	2
Electrocuted										1	1
By bander	1										1
In fence										1	1
Band only					1						1
Total	15	4	6	1	1	16	1	6	1	47	98

recovered in Central and South America had been shot. In Colombia 14 of 16 had been shot (Table 1).

However, band recoveries fail to provide information about the speed of migration of any individual hawk. Even when we know the exact date a bird died in Colombia or Argentina, we do not know when that bird left its territory in Saskatchewan or Alberta or how often it stopped.

Conventional radiowave telemetry has been used for 30 years in local areas to study territory size in hawks; two receivers are used to locate an animal through triangulation. More recently, powerful radios send microwaves to satellites in near space, approximately 800 km above the earth (satellite radiotelemetry).¹ A single satellite passing overhead has the capacity to calculate a hawk's location using the doppler effect, similar to the sound of a passing train. Transmitters are now small enough (28 g) to allow satellite telemetry of Swainson's Hawks. In 1994, Brian Woodbridge, of the United States Forest Service, used a satellite transmitter to track a female Swainson's Hawk from its nest in northern California to Argentina. Transmissions were received by National Oceanic and Atmospheric Administration weather satellites in polar orbit and relayed to a data processing centre in Maryland. In Argentina the sequential transmitter locations led Woodbridge to loose flocks of as many as 4,000 hawks and to observe over 700 hawks that had died from pesticide poisoning.⁸

In 1995, the radiotelemetry effort was extended. Twelve adult Swainson's Hawks were trapped at their nests and fitted with radio transmitters attached by backpack harness; nine functional transmitters were

from California (1), Utah (1), Colorado (2), Idaho (3), and Alberta (2). In Alberta, the transmitters were attached to an adult male and an adult female near Hanna by Ursula Banasch and Kort Clayton on 24 August 1995. To conserve battery strength, the radios are programmed to give signals only every third or seventh day. The location at a particular moment is most exact when the signal is of high quality, specified as two satellite fixes within 0.1 degree of latitude and longitude, or within about 6 km of each other; such a result is rated as a class 1 or 2 signal. When a lesser signal (termed Class A or B) is received, it provides a less reliable location "fix" and should be treated with considerable caution.

The two radio-equipped hawks provided, for the first time, the rate of southward travel of two Swainson's Hawks from the Canadian prairies (Figure 2). Both hawks were near their nests in Alberta on 14 September. By 23 September both sent radio signals from southwestern Saskatchewan. Both travelled across the US mid-west in early October to the Caribbean coast of northern Mexico, across Mexico to the Pacific coast state of Oaxaca, and through Central America in mid-October. They reached Colombia by the end of October, crossed the Andes and migrated down the east side of these mountains, through western Brazil, and arrived in Argentina by 7 November. Once in Argentina they drifted farther south, between 7 November and 3 December, the female travelling a further 650 km on a course slightly east of south.

The adult female, with twice-weekly radio transmissions via satellite, made the long journey in 53 days and the adult male, with radio



Figure 2. Locations and dates of two Swainson's Hawks that carried satellite transmitters from southern Alberta in 1995. Square is the female, triangle is the male. Open squares and triangles indicate less accurate class A and B signals.

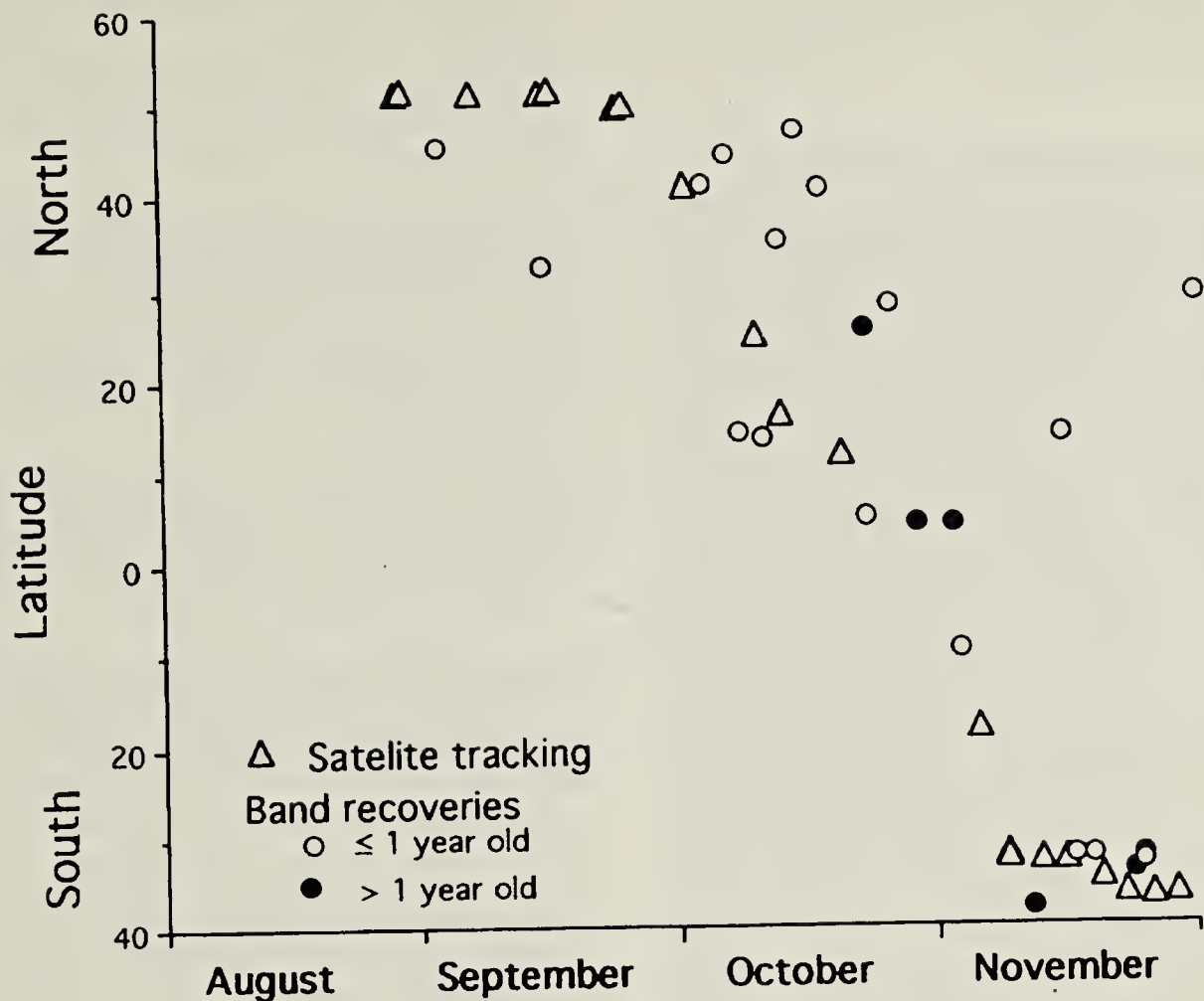


Figure 3. Latitudinal progress of southward migration until the end of November. Triangles represent satellite radio tracking; open circles represent banded hawks recovered in their hatching year; closed circles represent recoveries of older hawks.

fixes given weekly, in about 54 days. The overall average distance travelled by the female was 198 km per day (range 29-565 km/day), and for the male 194 km per day (range 43-362 km/day). All figures are approximate since a hawk may have left a day or two later and/or arrived a day or two earlier than our records show. Over a seven-day period in early October and two three-day periods in early November, during migration, the female averaged 536, 565, and 473 km/day, respectively. The male covered 362 km/day between Nebraska and the southern border of Tamaulipas, Mexico. Neither hawk appeared to have made any prolonged stops to feed. Although we have gained more precise information on the timing of migration than from 70 years of band recoveries, the results for the two radio-equipped adults, plotting date

against latitude, correspond quite closely with the results of band recoveries (Figure 3).

The combined results of the two techniques also have provided an unanticipated by-product — they raise two conservation concerns. The first is the high proportion of hawks that are still being shot, especially in Central and South America. Second, the presence of transmitter birds caused Brian Woodbridge to follow his radio hawk in Argentina and thereby happen on 700 dead Swainson's Hawks, including one banded in southwest Saskatchewan, that were killed by pesticide spraying in Argentina.⁸ In January and early February 1996, Marc Bechard, Brian Woodbridge and Mike Goldstein took turns visiting the sites of radio birds in Argentina, and the latter two happened on massive kills. From 4,847

carcasses, nine carried bands, six of which had been placed in Saskatchewan and Alberta.

Acknowledgements We thank Ursula Banasch and Kort Clayton for trapping the hawks and attaching the radios. Ursula and an anonymous reviewer also provided constructive criticism. We thank Colleen Hyslop, Loney Dickson and Dorothy Kessler of Canadian Wildlife Service for assistance in acquiring the two transmitters; Brian Woodbridge, USDA Forest Service, for the signal locations; and Mark Fuller, US National Biological Survey, for the necessary paperwork to obtain approval for use of the transmitters. Funding was provided by the Canadian Wildlife Service's Latin American program and USDA Forest Service. Ann Demers of the Bird Banding Office, Canadian Wildlife Service, supplied the printout and disk of all North American Swainson's Hawk recoveries through 1992.

1. FULLER, M.R., W.S. SEEGAR, J.M. MARZLUFF, and B.A. HOOVER. 1995. Raptors, technological tools and conservation. Pp. 131-144 in

Transactions of the Sixtieth North American Wildlife and Natural Resources Conference, Minneapolis, Minnesota (Wadsworth, K.G. and R.E. McCabe, eds.). Wildlife Management Institute, Washington, D.C.

2. HOUSTON, C.S. 1968. Recoveries of Swainson's Hawks banded in Saskatchewan. *Blue Jay* 26:86-87.
3. HOUSTON, C.S. 1990. Saskatchewan Swainson's Hawks. *Am. Birds* 44:215-220.
4. HOUSTON, C.S. and J.K. SCHMUTZ. 1995. Swainson's Hawk banding in North America to 1992. *North American Bird Bander* 20:120-127.
5. SMITH, N.G. 1985. Counting migrating raptors. Pp. 239-242 in *Proceedings of hawk migration conference IV* (Harwood, M., ed.). Hawk Migration Association of North America.
6. SMITH, N.G., D.L. GOLDSTEIN, and G.A. BARTHOLOMEW. 1986. Is long-distance migration possible for soaring hawks using only stored fat? *Auk* 103:607-611.
7. STILES, D.J. and M.I. HOUSTON. 1994. Distant travels of Tree Swallows of the prairie provinces. *Blue Jay* 52:206-212.
8. WOODBRIDGE, B., K.K. FINLEY and S.T. SEAGER. 1995. An investigation of the Swainson's Hawk in Argentina. *J. Raptor Res.* 29:202-204.



The most wonderful mystery of life may well be the means by which it created so much diversity from so little physical matter. The biosphere, all organisms combined, makes up only about one part in ten billion of the earth's mass. It is sparsely distributed through a kilometer-thick layer of soil, water, and air stretched over a half billion square kilometers of surface. If the world were the size of an ordinary desktop globe and its surface were viewed edgewise an arm's length away, no trace of the biosphere could be seen with the naked eye. Yet life has divided into millions of species, the fundamental units, each playing a unique role in relation to the whole. *Wilson, E.O. 1992. The diversity of life. W.W. Norton and Company, New York. 424 pp.*

WHIMBRELS IN THE TABER AREA

LLOYD BENNETT, Box 4725, Taber, AB. T1G 2E1

In most of Alberta, the Whimbrel is a very rarely seen spring migrant. Salt and Salt state that "very few Whimbrels migrate through the interior, and records in the Prairie Provinces are usually sightings of singles or small groups."¹ Peterson reported that Whimbrels are "sparse on the Canadian Plains."²

Whimbrels are known to breed in two disjunct areas of North America. One area is along the western coast of Hudson Bay, and the other is the northwestern Mackenzie, northwestern Yukon, and northeastern Alaska.³ The main migration routes are said to be along the coasts, with only small numbers travelling inland.³ They are highly anticipated by many Alberta birders each year but rarely seen except by a lucky few. However, in the Taber, Alberta area, about 50 km east of Lethbridge, they can be quite common birds for a short period.

In my 16 years of observations since 1980, Whimbrels have never failed to appear by early May near Taber and flocks can always be found. In fact, their arrival is quite predictable. All first sightings these years were usually single birds or small groups and have been in the period between 27 April and 5 May, with the majority coming between 1 and 4 May. During the second and third weeks of May sightings become more frequent, sometimes almost daily, and the numbers increase as well. A few stragglers are sometimes found the last week of May.

The year that I "discovered" Whim-

breels in the Taber area was 1980. Just a few months earlier I had become serious about birds, struggling to learn about them with only the help of field guides. I lived on a farm, and carried binoculars with me whenever possible while working, in order not to miss anything. The first day that I positively identified Whimbrels was 3 May. I had been working on a tractor in the field when a flock of 13 large shorebirds landed not far away in the freshly worked soil and later walked into a field of short alfalfa. My first thought was that they were Long-billed Curlews because their curved bills were quite apparent. However, upon closer examination with binoculars, I saw that their bills were only about 10 cm long and the birds were smaller and grayer than Long-billed Curlews. I was familiar with curlews since I saw them frequently in the prairie areas near Taber, so I guessed that these unfamiliar birds were related to them. At home, a search in my field guide revealed that these were Whimbrels. I then realized that on 1 May I had seen five Whimbrels flying over a field but, without close inspection, had assumed them to be Marbled Godwits. During the next few days I had many more sightings of Whimbrels and learned a great deal about their calls, description, and behaviour.

Whimbrels are large shorebirds, about the size of Marbled Godwits. The most obvious field mark is the bill, decurved as in the Long-billed Curlew but much shorter, about 10 cm long. Much of the body is a mottled brownish gray with the neck and



Whimbrels at Scope Lake, 14 May 1995

Lloyd Bennett

breast lighter than the back and wings and the belly is whitish. Another field mark is the two dark stripes on the crown which are divided by a thin, light median line with another light stripe just over the eye. Another dark stripe passes through the eye from the bill. The legs are bluish gray and the bill is black.

Whimbrels are quite loud and vocal during spring migration, with three distinguishable calls, all of which are somewhat similar to calls of the Long-billed Curlew. One is a short "wititi," all syllables with an upward inflection. A second longer call is a trumpeting "tititititi" which drops slightly in pitch and the third begins with a low bubbling call for about a second, building into a repetition of "tititititi" again.

Whimbrels become common birds in the Taber area during the first half of May and occasional after that as shown in Table 1. In other years, following 1980, records of Whimbrels have had a similar pattern of occurrence.

Table 2 shows the fairly regular arrival dates along with the less regular latest spring dates. The latest spring date is 6 June 1980 and I have no fall records. The numbers vary considerably from year to year but Table 2 shows that the lowest maximum number seen has been between 30 and 35 on four occasions but most years there are many more. The number of days of sightings per year varies from 3 to 16 but I suspect that the low numbers reflect my lack of daily record-keeping of common birds in those years and not a lack of Whimbrels. Be that as it may, it is apparent that there is a significant spring movement of Whimbrels annually in the Taber area.

If so many Whimbrels move through the Taber area each spring, where do they go from there and why are more not recorded in other areas of Alberta? For example, in the Calgary area they are not seen every year and one or two birds is considered to be a typical number (R. Dickson and P. Sherrington, pers. comm.)

Table 1: WHIMBREL SIGHTINGS IN THE TABER AREA SPRING 1980		
Date	Number	Comments
1 May	5	flock in flight over field
3 May	13	in ploughed field or short alfalfa
5 May	20	in same field
6 May	28	groups of 11, 9, and 8 in same field
7 May	17	groups of 6 and 11 in same field
8 May	48	groups of 5 and 13 in same field, flock of 30 in flight over field
9 May	11	in flight over field
10 May	1	in flight over field
11 May	12	single and group of 11 in fields
12 May	3	single and group of 2 in alfalfa
13 May	1	in alfalfa
14 May	2	two singles in fields
15 May	2	1 in field, 1 in flight over field
23 May	5	1 in field, 4 in flight over field
28 May	3	singles in flight
6 June	1	in flight

although a group of 37 was found just southeast of the city on 16 May 1987 (D. Collister, pers. comm.). There are very few records from the Medicine Hat area (D. Baresco, pers. comm.). In the Lethbridge area, individuals or small groups of up to 5 or 10 birds are found most years (L. Saunders, pers. comm.). Occasionally, large flocks have occurred. Seventy-one were found near Monarch on 12 May 1995 (L. Saunders, pers. comm.) and an impressive 150 were seen at Keho Lake on 13 May 1990 (T. and D. Dolman, pers. comm.).

Whimbrels were sighted in Alberta in only three years from 1961 to 1970, all from Beaverhill Lake, with the largest number 24 birds.⁴ Many more records occurred from 1971 to 1980 from a variety of locations although numbers were generally small. Whimbrels were found in spring between 5 May and 4 June and Alberta's first fall record was reported from the Fort McMurray area with a single bird on 24 August 1980.⁵ Also in this decade the record for the highest number in Alberta was set near Raymond, southeast of

Lethbridge. On 13 May 1979 a flock of 264 birds was found in a field of flooded stubble and alfalfa and 25 were found earlier the same day at Stirling Lake, which is a few miles to the east (A.R. Smith, pers. comm.).

A search of available literature reveals that Whimbrels are not found at any one location in Alberta on a regular basis, with the possible exception of Beaverhill Lake which may have small numbers every year. Therefore, the regular Taber sightings are significant but a mystery as to why they occur. One possible explanation is that the Taber area is a staging area for Whimbrels. Some other shorebirds are known to congregate in large numbers in certain locations, while very few are seen in other areas. An example in Alberta is the Buff-breasted Sandpiper, which stages on the western side of Beaverhill Lake annually, while records from other areas of the province are extremely rare (Ross Dickson, pers. comm.). Whimbrels are strong fliers and could conceivably fly long distances without stopping after leaving Taber, which might

Table 2: WHIMBREL SIGHTINGS IN SOUTHERN ALBERTA 1980-1995				
Year	Earliest	Latest	Maximum	Days Sighted
1980	1 May	6 June	48	16
1981	27 April	18 May	35	6
1982	4 May	19 May	50	12
1983	4 May	1 June	100	14
1984	3 May	29 May	40	7
1985	1 May	23 May	150	5
1986	1 May	15 May	30	4
1987	1 May	25 May	33	6
1988	30 April	21 May	30	4
1989	4 May	23 May	110	5
1990	3 May	27 May	40	5
1991	5 May	15 May	60	3
1992	30 April	16 May	85	13
1993	27 April	21 May	65	16
1994	27 April	16 May	160	6
1995	2 May	24 May	215	10

explain the lack of records in other areas.

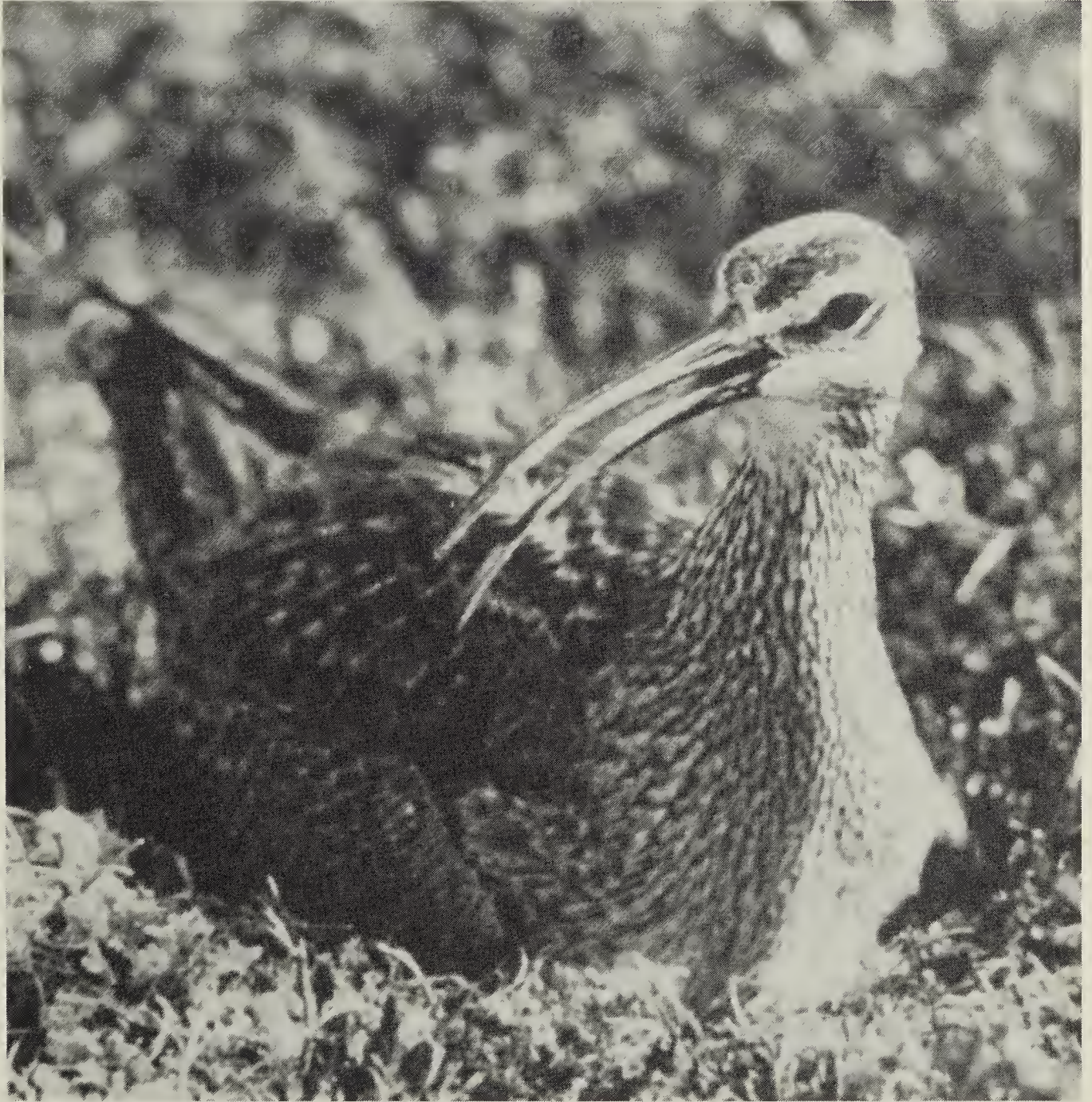
Another possibility is that Whimbrels are travelling mainly in areas not frequented by birders, in farmland and not at lakes. The great majority of records from the Taber area are from farmland, usually freshly worked soil or short alfalfa and sometimes at puddles in fields. Here they appear to be feeding on worms and some insects such as grasshoppers and beetles. Only rarely are they found at lakeshores or sloughs. An exception to this came in 1995 when on 14 May I found about 140 Whimbrels at Scope Lake east of Vauxhall and about 30 at Lake Newell, plus 13 at Lost Lake west of Vauxhall on 16 May. These flocks were on small bars or islands in the company of other shorebirds such as Black-bellied Plovers, Marbled Godwits, and a few Red Knots.

It is my feeling that more Whimbrels should be found across Alberta than have been in the past. Perhaps more observers need to be more aware of their description, habitat

preferences, behaviour, and calls. The best ways of finding Whimbrels are by hearing their loud distinctive calls and by watching for these large shorebirds which most often fly in line formation. The best time to look for them is May; starting in early May in southern Alberta and mid to late May in areas farther north. Seeing and hearing a large flock of Whimbrels would be a memorable experience for anyone.

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1. SALT, W.R. and J.R. SALT. 1976. The birds of Alberta. Hurtig Publishers, Edmonton. 498 pp.
2. PETERSON, R.T. 1961. A field guide to western birds. Houghton Mifflin Company, Boston. 366 pp.
3. GODFREY, W.E. 1986. The birds of Canada, revised edition. National Museum of Canada, Ottawa. 594 pp.
4. SADLER, T.S. and M.T. MYRES. 1976. Alberta birds, 1961-1970. Natural History Occasional Paper No.1, Provincial Museum of Alberta. Edmonton. 314 pp.
5. PINEL, H.W., W.W. SMITH, and C.R. WERSHLER. 1991. Alberta birds, 1971-1980. Natural History Occasional Paper No.13, Vol.1. Provincial Museum of Alberta, Edmonton. 243 pp. Federation of Alberta Naturalists, Edmonton.



Whimbrel

Wayne Lynch

WINTER SONGS OF THE PINE GROSBEEK

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Both in appearance and voice, the Pine Grosbeak is one of Canada's most attractive winter birds. Bent's account of this species includes several tributes to the beauty of its songs.¹ In winter most of the Pine Grosbeak's vocalizations are flight or contact calls but its repertoire includes some quiet yet complex songs of the kind often called "whisper song." An interesting feature of these songs is the frequent imitation of other birds' calls.² Because so few birds sing in winter in Manitoba, I have kept notes on this behaviour over an extended period. Here, I summarize 78 observations of whisper singing by Pine Grosbeaks at, or near, Pinawa, Manitoba between 1978 and 1995. They include 38 observations (49%) of songs that included mimicry of other species. "Typical" territorial song was noted less frequently, about 15 times.

The Pine Grosbeak is a common winter visitor to the Pinawa area. My 20 years of migration records indicate median first-arrival and last-departure dates of 24 October and 19 March, respectively. Breeding-season records in southeastern Manitoba are exceedingly rare.

Observations Whisper song of the Pine Grosbeak is normally audible from about 25 m under ideal conditions. Some especially soft renditions may be barely audible at 10 m. The song consists of a steady stream of soft whistles, warbled phrases and call-notes, often including muted versions of typical Pine Grosbeak flight-

calls and imitations of the calls of other bird species. This medley is uttered more or less continuously, sometimes for 5 minutes or more at a stretch. In contrast, typical song consists of brief but rich warbled phrases with a "wild" quality, suggesting a loud Purple Finch, and is clearly audible at 100 m or more. A few Pine Grosbeak songs were intermediate in volume and complexity between the whisper and typical songs, and were therefore difficult to classify.

Pine Grosbeaks usually utter their whisper songs while perched in trees, either alone or in small groups and otherwise unoccupied. Sometimes they sing, without interruption, while feeding on ash or lilac seeds etc. Singing has been noted in sunshine, cloudy conditions, and even during a snowstorm and at temperatures down to -35°C. In 47 cases where the individual songsters could be distinguished, 30 were adult males (i.e. second winter or older), four were definitely subadult males, and 13 were either females or subadult males.

Observations of whisper singing span the wintering period, from 14 October to 10 March (the former date, coincidentally, is a local early-arrival record). However, 68 of the 78 observations (87%) occurred between 29 January and 10 March, indicating increased singing during the month or so prior to migration which is usually under way by late February. Whisper singing has been noted



Pine Grosbeak

Frank Walton

throughout the daylight hours, as early as 7:30 a.m. (just before sunrise) 14 February 1995 and as late as 5:15 p.m. (half an hour before sunset) 24 February 1981. A majority of observations (approximately 80%) were between 9:00 a.m. and 12:00 a.m. but this is partly a reflection of my own activities.

In most cases, only one whisper singing bird was heard on a given day. On six occasions, three or four well separated songsters were noted in one day (each individual is included as a separate observation in the totals discussed here). An exceptional number of singing Pine Grosbeaks was heard in Pinawa on 4 March 1995. At least 18 individuals out of 80 birds seen in the space of 90 minutes (8:00 A.m. to 9:30 a.m.) were singing; 14 were uttering whisper songs and four intermediate songs. At least nine of the 14 whisper singers included mimicry in their

repertoires. Of the 18 singers, seven were males, four probably females and seven undetermined. Nearly every group of Pine Grosbeaks I approached that day included at least one singer. This exceptional record is probably linked to a later-than-usual departure of Pine Grosbeaks from southern Manitoba, prompted by unseasonably cold weather.

All of the bird species imitated by the Pine Grosbeak share its summer range. Most frequently mimicked were the calls of American Robin (34 occasions) and Gray Jay (14). Less frequently mimicked were Lesser Yellowlegs (6), White-winged Crossbill (5), Northern Flicker (5), Common Redpoll (4), Hairy Woodpecker (4), Olive-sided Flycatcher (4), Greater Yellowlegs (1), and Yellow-bellied Sapsucker (1). As many as five different species have been imitated in a single bout of song. The song is so softly uttered, and richly varied, that other imitations could easily have been overlooked.

On 40 of 78 occasions (51%), whisper singing was noted without evidence of vocal mimicry. However, this total includes instances when the song was heard only briefly or with interfering background noise. Therefore mimicry is probably even more frequent than this percentage suggests.

Discussion Complex sub-songs, sometimes described as whisper singing, represent a phase in the development of song repertoire in young individuals of many passerine species, often commencing just a few weeks after fledging.³ However, it is known that this behaviour is not restricted to juvenile birds, as illustrated by the present study. The timing of most of my observations suggests a link to the onset of breeding condition in late winter.

I am aware of one other published report of vocal mimicry by whisper singing Pine Grosbeaks; the singer was one of a pair at a nest near Rod-dickton, Newfoundland on 24 June 1981.⁴ The species mimicked in that case were American Robin, Gray Jay, Ruby-crowned Kinglet, Greater Yellowlegs, and possibly Red Cross-bill. Bent includes a reference to a loud imitation of American Goldfinch flight calls by a group of Pine Grosbeaks but this may refer to similar phrasing of the two species' calls rather than true mimicry.¹

The observations described here indicate that whisper singing, often including mimicry of other birds' calls, is a fairly common behaviour of Pine Grosbeaks in late winter. Whatever its biological function may be, it certainly uplifts the human spirit on a cold winter day in Manitoba. I would

be pleased to hear of any related observations on Pine Grosbeak song.

Acknowledgements I thank Reto Zach and Rudolf F. Koes for helpful comments on a draft of this article

1. BENT, A.C. *et al.* Life Histories of North American Cardinals, Grosbeaks, Buntings, Towhees, Finches, Sparrows, and allies (O.L. AUSTIN, Jr., ed.). U.S. National Museum Bulletin 237, Part One. Smithsonian Institution, Washington D.C. Pp. 326-346.
2. TAYLOR, P. 1979. Interspecific vocal mimicry by Pine Grosbeaks. *Can. Field-Nat.* 93:436-437.
3. TERRES, J.K. 1982. The Audubon Society encyclopedia of North American Birds. Alfred A. Knopf, New York, N.Y. Pp 833-834.
4. WELLS, J. 1981. An observation of vocal mimicry in Pine Grosbeak. *The Osprey Newfoundland Natural History Society Quarterly* 12:82-84.



It is diversity by which life builds and saturates the rain forest. And diversity has carried life beyond, to the harshest environments on earth. Rich assemblages of animals swarm in the shallow bays of Antarctica, the coldest marine habitats on earth. Perch-like notothenioid fishes swim there in temperatures just above the freezing point of salt water but cold enough to turn ordinary blood to ice, because they are able to generate glycopeptides in their tissues as antifreeze and thrive where other fish cannot go. Around them flock dense populations of active brittlestars, krill, and other invertebrate animals, each with protective devices of its own. *Wilson, E.O. 1992. The diversity of life. W.W. Norton and Company, New York. 424 pp.*

A BRAMBLING AT CLARESHOLM, ALBERTA DURING WINTER 1993-1994

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During the winter of 1993-1994, a Brambling was present for 101 days in a backyard in Claresholm, Alberta. Throughout this period it was observed almost daily by Attwell and its feeding behaviour and interactions with other species were noted.

The Brambling is a palearctic finch breeding mainly in subarctic and boreal birch woods from Scandinavia across central Russia to Kamchatka.^{1,2} The species winters entirely south of its breeding range, concentrating in areas with abundant beechnuts, sometimes in spectacular numbers.¹

In North America, the Brambling is a rare but regular spring and fall migrant in the western Aleutian Islands of Alaska³ but was not recorded outside Alaska until 1958, in New Jersey.⁴ The first Canadian Record was 7 February 1971 on the Queen Charlotte Islands of British Columbia and subsequently the number of records of the species has increased significantly across the continent.⁴ On 14 November 1989 Alberta recorded its first Brambling when a male visited a feeder at Edson where it remained until at least the end of January 1990.⁵



Adult female Brambling at Claresholm, Alberta, December 1993

Grace Norgard



Adult female Brambling at Claresholm, Alberta, December 1993

Grace Norgard

The second Alberta Brambling was first seen in the backyard of Jason and Ruth Attwell in Claresholm on 19 December 1993 high in a Green Ash (*Fraxinus pennsylvanica*) with a Common Redpoll and a Yellow-rumped [Myrtle] Warbler (itself a rare wintering bird in Alberta that had been present since mid-October and which survived the entire winter). The Brambling remained in the area for 101 days and was last seen on 29 March 1994. During this time the bird was seen by nearly 100 people and excellent photographs were obtained.

The bird's pale grey face with darker auricular patch, broad rufous-cinnamon tips to the greater coverts and white belly and rump, untinged with yellow, identified the bird as a winter plumaged adult female.² By the end of March, abrasion of the lighter feather tips of the black-centred feathers of the cap, nape and back had more clearly defined these areas and when the bird departed it

was essentially in its summer breeding plumage. The bird was not heard to make any sound during its stay.

Although a wide variety of feeder and natural foods were available in the yard, the bird showed a consistent preference for both certain food types and location. In terms of time, approximately 50% of the bird's observed feeding involved plant material (mainly seeds) and 50% invertebrate animal material (insects, arthropods, animal fat).

About half the observed feeding took place at a low feeding tray where the bird exclusively took small black oil sunflower seeds. Sunflower seed, niger seed and wheat were also available at seven other feeders placed above the ground but the bird was never observed feeding there. Occasionally the bird was observed feeding on crab apples (*Malus pumila* var.) both on trees and on the ground, although it is uncertain whether the fruit was being eaten or

insects being gleaned from the fruit. The fruits of chokecherry (*Prunus virginiana*), cotoneaster (*Cotoneaster* sp.) and mountain ash (*Sorbus americana*) were widely available but were never seen to be taken by the bird. This is consistent with feeding behaviour in Europe where Bramblings take few seeds from fleshy fruits,⁶ with the exception of the flesh and seeds of European mountain ash (*Sorbus aucuparia*),² good crops of which can concentrate flocks of the bird.⁷

Approximately 35% of the feeding behaviour comprised ground feeding, mainly in leaf-litter beneath hedges and trees where the bird would move leaves with its beak presumably searching for insects and arthropods. The bird was never seen to use its feet to assist in this operation. Throughout the winter the bird also gleaned the bark of tree branches well above the ground. This element of its diet was supplemented through visits to a 50% mixture of peanut butter and ground suet set on a post 1.5 m above the ground. Approximately 15% of the bird's observed feeding took place here. A heated birdbath was present near the main feeding area to which the Brambling came to drink many times a day but was never seen to bathe.

A total of 19 other species of birds were present in the yard during the winter and most appeared tolerant of the Brambling at the feeding station. Initially House Sparrows would chase her away from the feeder but soon ignored her. In late January there was an influx of 70 Common Redpolls into the yard that proved to be dominant at the feeding area, consistently driving the Brambling away. Another similar feeding area was established 20 m away where

the bird fed with less disturbance. At this time she ceased to eat the suet/peanut butter blend. The reason for this is unclear, but it was not because of competition with redpolls as they rarely took this food.

There was relatively little snow throughout the winter but in February temperatures dropped on occasion to -30°C. On 28 February a prolonged period of chinook winds began and the yard was cleared of snow within three days. Half the redpolls left the area and the Brambling made less frequent visits to the feeding area, preferring instead to forage and glean under trees and hedges. The lack of snow presumably made such foraging easier and the higher temperatures would have resulted in a greater abundance and mobility of invertebrate food. Drinking at the heated birdbath was confined during this period to a short period about one hour after first light. On 12 March the rest of the redpolls departed and immediately the Brambling resumed feeding and drinking throughout the day at the main feeding area until her departure on the night of 29 March.

During the winter of 1993-1994, 12 Bramblings were recorded in North America at nine localities.⁴ Those closest to the Claresholm bird were one at Portage la Prairie, two near Minnedosa, Manitoba and one near Kalispell, Montana.^{8,9} This was the fourth highest Brambling "invasion" year to date; the highest involved 17 records of the species outside of Alaska in the winter of 1983-1984.

1. NEWTON, I. 1972. Finches. Collins, London.
2. CRAMP, S. and C.M. PERRINS 1994. Handbook of the birds of Europe, the Middle East and North Africa. Volume VIII. Crows to Finches. Oxford University Press, Oxford.

3. ROBERSON, D. 1980. Rare birds of the West Coast. Woodcock Publications, Pacific Grove, California.

4. JONES, C. 1995. A review of North American Brambling records. *Birders Journal* 4:75-79.

5. KOES, R. and P. TAYLOR, 1990. *American Birds* 44:111, 285.

6. SNOW, B. and D. SNOW, 1988. Birds and berries. T&AD Poyser, Calton.

7. ERIKKSSON, K. 1970. Wintering and autumn migration ecology of the Brambling *Fringilla montifringilla*. *Sterna* 9:77-90.

8. KOES, R. 1994. *Birders Journal* 3:16, 85.

9. SWINGEN, D. and T.H. ROGERS, 1994. *National Audubon Society Field Notes* 48:229, 322.

POETRY

GRAIN EXCHANGE

Kilograms of crushed corn
seeds of sunflowers
disappear from feeders
like dinner from a plate,
fill insatiable reservoirs
of chickadee and jay,
redpoll, sparrow, siskin.

Entertain us with your antics now,
sing arias in spring.
In summer's heat
make meat of garden pests
till autumn's chill
triggers our instincts
to fill your feeders again.

- Judith Benson, 1048 Spadina Crescent E., Saskatoon, SK. S7K 3H7

OCCURRENCE AND BREEDING OF THE EASTERN SCREECH-OWL NORTH OF THE RIDING MOUNTAINS, MANITOBA

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The geographical range of the Eastern Screech-Owl in western Manitoba extends north to Riding Mountain National Park (RMNP).⁵ In a comprehensive study by Adam, the species was recorded much further north in Saskatchewan and Alberta than in Manitoba.¹ On the basis of available data, Adam concluded that a Wasagaming record at the southern boundary of RMNP was probably the northernmost for Manitoba.

From 1971 to 1993, Walley documented records of Eastern Screech-Owls north of the Riding Mountains, primarily in the Dauphin region. Inquiries made of long-time residents of the area indicated that the owl has occurred in the region north of RMNP for at least 45 years.

Early Records While many observers can identify our common birds, most do not recognize unusual or uncommon birds such as small owls. Could some of the owls reported as Eastern Screech-Owls or "tiny owls with tufts on the head" actual have been other species? Boreal Owls have been described by one writer as having tiny feather tufts which can be seen when viewed in certain postures.¹⁶ Of winter sightings (Table 1), over 85% of the 22 records were reported by observers familiar with the owl or by specimens (frozen birds) or photographs. Moreover, unless specifically sought, the

miniscule feather tufts of the Boreal Owl would be easily overlooked. Standard field guides show no feather tufts for Boreal Owls.^{5,9,14} It is also unlikely that Northern Saw-whet Owls were mistaken for screech-owls. This species has no feather tufts and is migratory from the region.⁵ In addition, over 80% of the spring owls (Table 1) were identified from their territorial calls by the senior author.

Among the early reporters of screech-owls in the region, two of four observers, Ed Siwicki and Charlie Bancarz, recognized the species amid other raptor mounts in the Biology room at the Dauphin Regional Comprehensive Secondary School. At Roblin near the Saskatchewan boundary (51° 28' N; 101° 10' W), in the late 1940s, tiny owls with feather tufts on the head were seen and eventually found frozen near the barn (E. Siwicki, pers. comm.). Bancarz (pers. comm.) saw "barn owls" with little tufts on the head that spent the winter catching sparrows in the barn on their farm 29 km north of Roblin in the early 1950s. In the winter of 1965 a small owl with feather tufts perched all day by the house at the Carmichael farm just north of RMNP (B. Carmichael, pers. comm.). Closer to the study area an injured small owl with "horns" was found at a farm north of Gilbert Plains in the winter of 1984 (E. Hnatiuk, pers. comm.).

Table 1: WINTER AND SPRING RECORDS OF EASTERN SCREECH-OWLS IN MANITOBA NORTH OF THE RIDING MOUNTAINS 1971-1993¹

Year	Winter ²	Spring ³
1971		1
1973		2
1974		1
1975		1
1976	1	2
1977	2	1
1978	2	
1979	6-7	2
1980		2
1981	1	2
1982		1
1983	1	
1984		2
1985	2	
1986	1	1
1987	1	1
1989	2	
1991		1
1992	1	
1993	2	2+ ⁴
Total	22-23 ⁵	22 ⁶

¹ within 400 km² of Dauphin
² most reported to the authors by others, mainly farmers
³ most located by Walley through call recognition
⁴ mated pair and 5 young
⁵ 11 locations in 12 different years
⁶ 9 locations in 15 different years

Recent Records The occurrence of the Eastern Screech-Owl at barns where the principle prey apparently is sparrows, is well documented.^{2,3,13} In this study, 73% of the winter records (Table 1) were of owls at, or near, barns or granaries in farmyards. The late Hilton Kotyk watched an owl in his farmyard SW of Dauphin from 1-20 January 1985. The owl left when the House Sparrow population was depleted. At the Baker farm along the Valley River just west of Lake Dauphin, Eastern Screech-Owls usually arrived at the barn in January when large numbers of House Sparrows were present. Two owls were found frozen at this location in the winter of 1993 (A.

Baker, pers. comm.). Of course mice are also taken by the owls as observed at the Rampton barn just SW of Dauphin in February 1987 (K. Leonard, pers. comm.).

Eastern Screech-Owls also occurred in the town of Dauphin. On the evening of 2 March 1989 Walley was called to a residential area in the north end of town where a gray phase bird slept on a horizontal limb of a Green Ash (*Fraxinus pennsylvanica* var. *subintegerima*) in -33°C temperatures. House Sparrows were abundant in the area. In the winter of 1978, four small owls were reported in Dauphin in late January and mid-February. Given the rareness of Boreal Owls — we have one record of this species between 1971 and 1993 from the boreal forest of the Duck Mountains some 100 km NW of Dauphin — and the absence of the Northern Saw-whet Owls in winter, it is quite possible that these owls were also screech-owls. In the village of Sifton (Figure 1) during December of 1985 or 1986 a trap, placed on the cage of a pet ferret that was being harassed at night, caught a 20 cm long owl with feather tufts (S. Wellborn, pers. comm.).

The 44 records of owls in Table 1 certainly include only some of the actual occurrences of the species in the area. This was indicated in 1985 when a Parks Canada warden informed us that many farmers, unaware of the illegality of the practice, had told him they had owls to stuff — the birds having died in barns where they kept the sparrows down.

The northernmost record of the Eastern Screech-Owl in Manitoba was a gray phase bird found frozen in the Kenville Pioneer elevator at 52° 00' N latitude just south of Swan River in January 1993. The specimen was delivered to Hugh Hornbeck by Bud Shadholt.

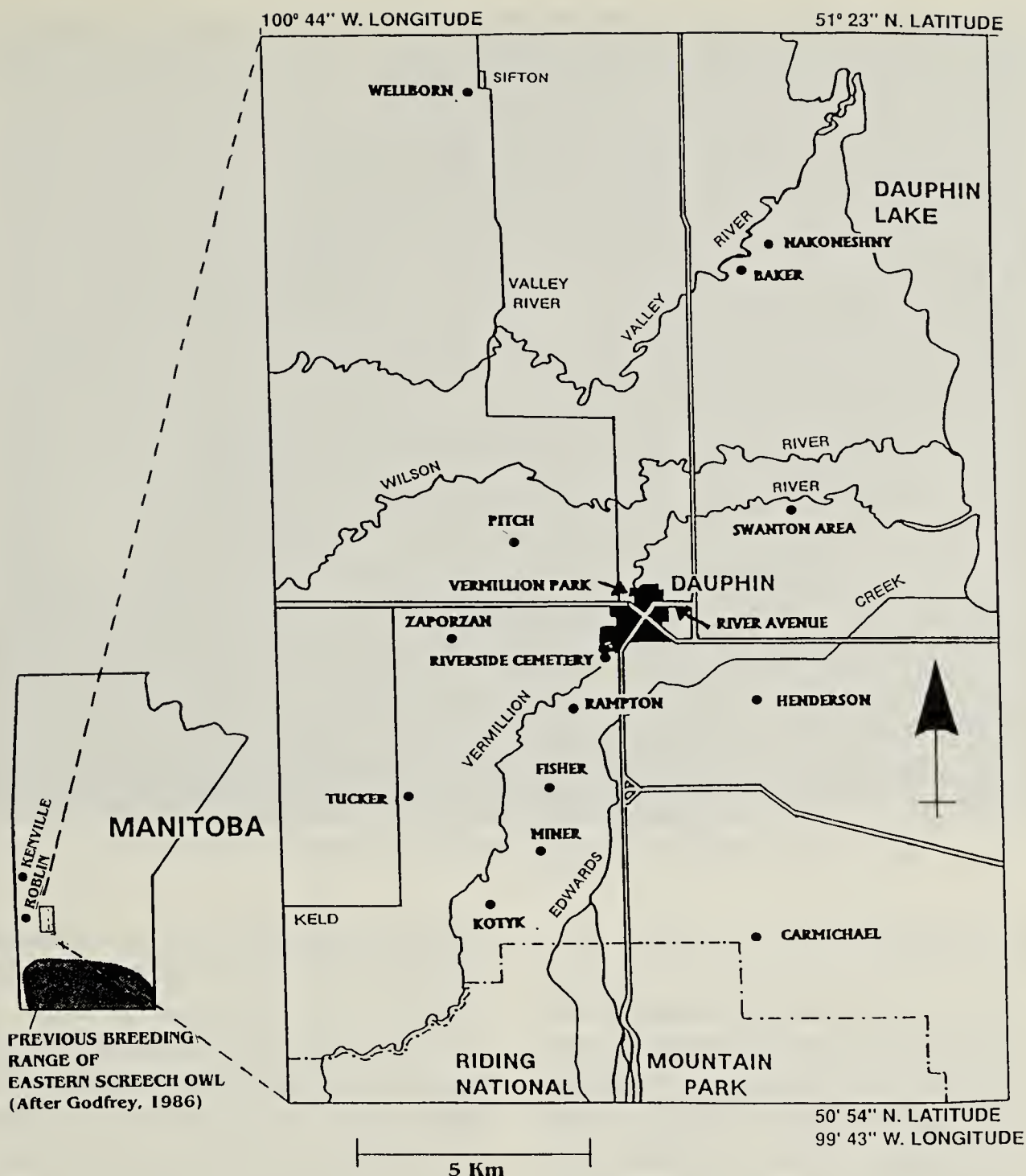


Figure 1. Locations of Eastern Screech-Owls near Dauphin, Manitoba, 1971-1973.

The seasonal pattern of distribution of the screech-owl appears to be farmyards in winter and dispersal into gallery forests along river courses in spring, presumably to establish territories and nest. In spring, the owls are the most vocal and have been identified by their calls, often in response to playback of recordings of their vocalizations. Riparian habitat includes mature stands of Manitoba Maple (*Acer negundo*), American Elm (*Ulmus americana*) and Green Ash, with some Trembling Aspen (*Populus tremuloides*), Paper Birch (*Betula papyrifera*) and

Balsam Poplar (*Populus balsamifera*). These tree species provide an abundance of nesting and roosting cavities. However, a nest box project initiated by us in the early 1990s along the Vermillion, Wilson and Valley rivers failed to attract nesting screech-owls, although we were unable to check some of the boxes some years due to high water levels. Most of the boxes were apparently taken over by Gray Squirrels that lined them with leaves. Only one spring record of the owl was found in non-riparian woods. This was in Trembling Aspen-Bur Oak (*Quercus*



Figure 2. Male Eastern Screech-Owl (gray phase) at roost in elm.

macrocarpa) woods.

It is possible that the records tabulated include several, if not many, of the same birds recorded in previous or successive years, although freezing to death in winter appears not to be an uncommon fate of these birds. An intensive banding program would provide information on actual dispersal patterns from winter to spring and the turnover in the population. An owl photographed at a hole in an elm in Vermillion Park in Dauphin on 20 April 1973 was one of two birds that were possibly a mated nesting pair that occurred there that year (Figure 2).

Being neither highly vocal as in the spring or attracted to farmyards as in winter, screech-owls are much less frequently encountered in summer and fall. All three summer (June- August) records involved birds identified in June that had been located in

spring (May) including a breeding pair discussed later in this paper.

In fall (September-November) an Eastern Screech-Owl arrived at a farmyard in aspen-willow habitat near a dry creek bed in early September 1986. A screech-owl was seen in the same area 5 November after a snowstorm (H. Henderson, pers. comm.). A small owl with feather tufts perched on the gable of the log home of Tom and Laurie Zaporzan in Bur Oak woods for a day in the fall of 1992. A gray phase owl collided with the vehicle of Jim Bertwhistle and Patty Best when it flew from a spruce shelter belt just southwest of Dauphin on 28 December 1983. The injured owl was recovered, rehabilitated and released by the Bests.

The records presented document the owl in this region of Manitoba north of the Riding Mountains. This



Figure 3. Male Eastern Screech-Owl (gray phase) in Vermillion Park.

report extends the breeding range of the Eastern Screech-Owl some 70 km north in Manitoba — the northernmost in the geographical range of the species. Prior to this study, the northernmost breeding record was the south boundary of RMNP at Wasagaming (50° 40' N; 100° 00' W) as observed by Richard Sutton in 1941 and reported by J. Dewey Soper.^{1,15}

Breeding in Dauphin Located in Dauphin, Vermillion Park is situated between the Vermillion River and a meandering oxbow. Numerous stately old American Elms, Bur Oaks, Manitoba Maples and Green Ash trees grow throughout the park but primarily along the water courses. Dense subcanopy shrubs provide cover for wildlife in the northern natural sector of the five hectare park. A walking-jogging-skiing trail follows the perimeter of the park.

An Eastern Screech-Owl was located in the park on 25 April 1993 by Jim Wynes. Late that day we found the owl tranquilly sunning at the entrance to a cavity 8 m up on the south side of a mature elm (Figure 3). The tree was positioned less than 4 m from the west bank of the oxbow. Subsequent visits proved that the gray phase bird was a male and that the site was its main daytime roost.

Observations of the owl in the evening of 25 April had begun just prior to 8:10 p.m. when two Blue Jays arrived to taunt the raptor from a branch 3-4 m distant. Aroused, the owl opened its eyes wide and threatened its agitators with a gaping bill. Shortly, the jays flew eastward from whence they had come and the owl went back to dozing. At twilight (9:05 p.m.) the owl, with striking suddenness, opened its eyes widely, crouched and stared straight ahead.

With feathers erected, it shook itself vigorously and with head lowered glowered left, then straight forward, left again and then right. Suddenly it took flight eastward 25 m across the oxbow where it perched and took up surveillance from a small stand of Manitoba Maples overlooking a 0.2 hectare area of dry Brome Grass (*Bromus inermis*) — a likely home for small rodents. The nightly flight across the oxbow to the maples later proved to be typical, although it sometimes flew westward. The owl was clocked at 39 km/hr as it flew from the roost 18 May.

After dark on 12 May the male, carrying a Giant Water Bug (probably *Lethocerus*)¹¹ in its bill, flew into a large Bur Oak on the west bank of the oxbow 30 m south of the roost tree. Viewed with a flashlight and binoculars, the prey-carrying owl faced northwest at its perch. After several minutes a soft whine was heard from that direction and soon the owl launched from the oak toward it. Lost from sight temporarily in the darkness, the male — without the bug — reappeared a few seconds later in a nearby tree. The prey had been delivered to an 11 cm diameter hole 3.8 m from the ground in the more southerly of two medium-sized maples which faced the oxbow 13 m to the east. This nesting tree was 15.3 m south of the male's main daytime roosting tree. Subsequent to the arrival of the male with food, the rusty-brown female flushed from the nest cavity and flew across the oxbow.

Periodic observations at the nest were made primarily before 12:00 p.m. In daylight, the female often roosted just inside the cavity entrance and remained there despite human activity on the hiking trail 10 m away or us some 25 m distant.

However, if looked at from close range, she quickly withdrew out of sight into the nest. Eventually she allowed us to photograph her from a ladder less than 2 m away. Was it by selection or by chance that the gray phase male had chosen a roost amid exposed gray wood and bark in and around the cavity entrance in the elm (Figure 3) while the rufous-brown female blended almost imperceptibly with the bark pattern and colouration around the cavity entrance to the nest (front cover). One hypothesis states that natural selection has produced cryptic colouration in owls according to prevailing local colour of bark, twigs and leaves.^{6,10} Our observations of roosting owls support this.

Owlet hissing and rasping was heard 14 May but the young could not be viewed, even with a flashlight and mirror, because of the angles of the tunnel from the entrance to the nest. Two owlets appeared at the cavity entrance on 1 June and three were seen there two days later. By 5 June four young were out of the nest and perched in nearby well-foliaged trees as observed by Larry Livingston. Three of these were as large as the adults, one of which, the female, roosted in the cavity entrance as noted by Livingston. A tiny fifth owlet peered from the entrance 6 June and this, or another small owlet, rasped for food at the cavity entrance 8 June while a larger youngster rasped from a tree on the east side of the oxbow. No others were heard or seen that evening even with an intensive search out to 100 m from the nest tree. A tiny owlet was still at the cavity entrance 9 June but was not seen there the following day. Two owlets rasped in trees 40 m NW of the nest tree on 10 June, their cries for food carried well over 100 m.

Table 2: PREY OF EASTERN SCREECH-OWLS IN MANITOBA 12 MAY - 3 JUNE 1993 ¹		
Species	Delivered to Nest by Male ²	Delivered to Nest by Female ³
Insects		
Giant Water Bug	1	
Water Beetle	1	3
Caterpillar		4
Unknown	1	12
Total	3	19
Mammals		
Northern Flying Squirrel	1	
Vole spp.	1	
Total ⁴	2	0
Birds		
Tennessee Warbler	1	
Yellow-rumped Warbler	3	
Wilson's Warbler	1	
Empidonax Flycatcher	1	
Chipping Sparrow	4	
Clay-coloured Sparrow	1	
Sparrow spp.	1	
Total ⁴	12	0
Amphibians		
Wood Frog	1	
Frog spp.	1	4
Total ⁴	2	4
¹ all observations before 12:00 p.m. ² prey delivered directly to the nest cavity or transferred to female at rendezvous sites ³ no transfers from male to female observed ⁴ vertebrate prey consisted, by number, of 10% mammals, 60% birds and 30% amphibians.		

In the morning of 11 June, one owlet was located by William Moshenko about 90 m from the nest tree on the ground and was under impending attack from marauding Common Crows. The fate of this bird is not known and no owls were found that evening. If the owlet survived, it and the others faced other perils. By 2:20 a.m. on 12 June, 50 mm of rain soaked the area. That evening a large owlet was perched 6 m up in a Green Ash tree by the oxbow 70 m from the nest tree. Suddenly a violent thunderstorm struck with torrents of rain and winds so powerful that two giant trees nearby crashed to the ground and the upper brick wall on the south side of the Dauphin First United Church, about one block away, collapsed inward. When the

storm ended, the young owl, who had good cover in the canopy, was seen to fly a short distance to another perch. Attempts to determine how wet its plumage was were unsuccessful because it was too far up. We believe five owlets were fledged from the nest. Some of the young are shown in Figure 5.

Prey The only three pellets found during the study were located at the base of the elm on 25 April. They all contained skulls and bones of small rodents. Identification of prey delivered was primarily made by Walley with a 20x spotting scope mounted on a tripod or with binoculars while the prey-bearing owl, often perched for several minutes at a rendezvous



Figure 4. Female Eastern Screech-Owl (brown phase) with Northern Flying Squirrel.

site, was illuminated with a 6-volt battery-powered flashlight by Clyde. Because of the contrasting color differences, the respective sexes were usually identified, even in flight, with the light beam.

Eastern Screech-Owls are opportunistic predators taking whatever available prey they can subdue. In terms of items or biomass, many studies report a preponderance of small mammals, birds or insects in the diet of this raptor.^{2,3,7,13} In this study, prey delivered to the nest included invertebrates (all identified were insects) and vertebrates (Table 2). By item, songbirds made up 60% of the vertebrate diet compared to only 10% mammals. Two factors may help explain the low percentage of mammals taken. The clipped lawn of the park would not be expected to support many mice and the Brome Grass area east of the oxbow may have had its rodent population mark-

edly reduced by the owls earlier. Identification of Tennessee, Yellow-rumped and Wilson's Warblers (Table 2) as prey of the owls showed that, of songbirds, at least 41% were known transients in northern migration. We recognize that our observations do not necessarily represent the actual prey proportions of the owls. In one study, the earliest that feeding ceased was at 2:50 a.m., the latest was at 4:14 a.m., with up to 75 feedings in a given night.² We rarely remained in the area past 11:50. A Northern Flying Squirrel was the largest prey delivered (Table 2 and Figure 4).

When the nest was first discovered on 12 May, two prey items were delivered to the cavity by the male. The female made all six trips to the nest on 15, 17, 20 and 21 May, where the sex of the adult was identified. Of these, three involved known transfers of prey to her by the male at ren-



Figure 5. *Eastern Screech-Owl* nestlings.

deztvous sites located mainly on particular branches of three nearby trees within 30 m of the nest. These transfers were usually (we may have missed hearing some) preceded by the female's quavering whistle from close by. After 21 May only two of 35 trips to the nest involved known transfers of prey to the female, the respective sexes usually making deliveries directly to the cavity. Transfers may have occurred however, but often, as on 25 and 28 May, feeding was so rapid that one bird would be arriving as the other was leaving the nest. This suggested few or no transfers were being made. Also, on those dates it was impossible to identify all the prey as flights were directly to the cavity without the usual pauses before entering. The minute size of the prey indicated that insects or other invertebrates were being transported.

The female was never seen with

avian or mammalian prey that had not been delivered to her by her mate. Of 14 birds and mammals captured on 10 discrete nights (Table 2) all were brought by the male to the female at the rendezvous site or to the nest cavity between 15 May and 3 June. Do these observations indicate that in this pair only the male captured birds and mammals?

One quiet evening at dusk, the male scanned the placid surface of the oxbow from its perch low in a maple near the east bank. Suddenly he flew out and seized a small unidentified animal in its talons from the water close to the west bank. Does the relatively calm surface of an oxbow, where movements of even a small insect are readily seen and/or heard by an owl, have advantages over locating such or similar prey on a rapidly flowing stream? At Vermilion Park, 44% of all known prey items were aquatic forms, the only



Figure 6. Tar-like material on talons of Eastern Screech-Owl.

possible sources of which were the still waters of the oxbow and the swift moving Vermillion River some 150 m west of the nest tree. All aquatic prey identified in the owls' bills were fauna typical of well vegetated stagnant pools, ponds or oxbows.¹¹ These included frogs, Giant Water Bugs (*Belostomatidae*) and Predaceous Diving Beetles (*Dytiscidae*), with an individual of the latter being identified from a transparency of the male with one in its bill. Perhaps running water contains too few available prey species or prey is too difficult to locate and/or catch. Robert Rockwell noted the importance of stagnant water to the Rocky Mountain Screech-Owl (Western Screech-Owl).²

Colour Phases and Adaptation

Eastern Screech-Owls are polymorphic in plumage colour showing gray, brown or rusty-brown and red.^{2,12, 14} Of 10 adult owls for which colour phase was positively known, seven

were gray and three were brown. One of the brown owls was a frozen specimen found by Adrian Baker. Baker delivered another brown specimen to Walley. This road-killed bird picked up on 18 March 1976 had a peculiar tar-like material built up on the talons of the right foot (Figure 6). James Duncan suggested that it may have come in contact with this substance in a chimney. The third brown phase owl which was actually rusty-brown was the female of the mated pair in Vermillion Park in 1993.

Red phase screech owls are not well adapted to cold. The absence of this phase among the known colour phases in the region is consistent with observations made during a severe winter in northern Ohio where 44% more red phase screech-owls died than gray phase birds. There was no difference in mortality between the two phases in normal win-

ters.⁸ Red phase screech-owls have significantly higher metabolic rates at temperatures below -5°C and consume less energy above 5°C making them poorly adapted to cold.⁸ Natural selection in the northern part of its geographic range has been for gray and brown. Birds with these plumages have reduced metabolic energy costs in maintaining thermoregulation.⁸ The colour variations may be due to direct differences associated with heat conductance or radiation, or indirectly to physiological differences genetically linked to plumage colour. Nevertheless, in the winter of 1995, a red phase Eastern Screech-Owl was identified at Birtle, Manitoba (50° 25' N; 101° 10' W) some 130 km southwest of Dauphin. Naturalist Edgar Dandridge discovered the raptor feeding on a freshly killed Rock Dove in his shed in Trembling Aspen-Bur Oak habitat on the north crest of the Birdtail Valley.

Conclusion The tabulation of almost 50 records of the Eastern Screech-Owl in this agricultural region of Manitoba where none had previously been known to science, is striking. The dearth of previous records from this area of Manitoba might be explained by the fact that farmers and others did not know of anyone to report sightings to until the senior author arrived in Dauphin in 1970 and began publishing results of Christmas Bird Counts in the *Dauphin Herald* and general birding notes in the Winnipeg newspapers. In adjacent Saskatchewan, 20 records dating back to the early 1940s are known for the Yorkton area.¹

It is possible that the species was simply overlooked by avian scientists. National Museum of Canada ornithologists failed to identify the Eastern Screech-Owl in studies conducted in: 1920 (P.A. Taverner and H. Lloyd); 1937 (P.A. Taverner, A.H. Shortt and W. Watkins); 1938

(A.H. Shortt and R. Sutton); and 1951 (W.E. Godfrey and C.L. Thacker).⁴ As stated earlier in this study, the writers were unaware of any screech-owls in summer that had not been located in spring and even then only three instances were known — the Vermillion Park breeding pair in 1993 and two others, both involving observations in early June only. All of the National Museum studies were conducted in summer when the owls are neither attracted to farmyards in quest of prey, as in winter, nor highly vocal as in spring, and therefore subject to being overlooked.

Acknowledgements Special thanks to Dr. James Duncan for constructive comments on the first manuscript, to Jim Wynes for reporting the male in Vermillion Park to us and to Adrian Baker for his many reports over the years on the owls at his farm. Thanks also to Dr. Robert Nero for providing pertinent reference material, to Dr. Hugh Hornbeck for the Kenville record, to Larry Livingston for his observations of the young leaving the nest cavity and to dozens of people who reported the owls to us over the years.

1. ADAM, C.I.G. 1989. Eastern Screech-Owl in Saskatchewan and adjacent areas. *Blue Jay* 47:164-188.
2. BENT, A.C. 1961. Life histories of North American birds of prey. Part II. Dover Publications, N.Y.
3. CRAIGHEAD, J.J. and F.C. CRAIGHEAD Jr. 1969. Hawks, owls and wildlife. Dover Publications, N.Y.
4. GODFREY, W.E. 1953. Notes on birds of the area of intergradation between eastern prairie and forest in Canada. National Museum of Canada Bulletin 128:189-240.
5. GODFREY, W.E. 1986. The birds of Canada. National Museum of Canada, Ottawa. 595 pp.
6. MARSHALL, J.T. Jr. 1967. Parallel variation in north and middle Ameri-

- can screech owls. Monographs of the Western Foundation of Vertebrate Zoology, No 1.
7. MAZUR, K.M. 1992. Fall food of the Eastern Screech Owl in Manitoba. *Blue Jay* 50:33-35.
 8. MOSHER J.A. and C.J. HENNY. 1976. Thermal adaptiveness of plumage color in screech owls. *Auk* 93:614-619.
 9. NATIONAL GEOGRAPHIC SOCIETY. A field guide to the birds of North America. National Geographic Society. 464 pp.
 10. NORBERG, R.A. 1987. Evolution, structure and ecology of northern forest owls. Pages 9-43 in Biology and conservation of northern forest owls (NERO, R.W., R.J. CLARK, R.J. KNAPTON, and R.H. HAMRE, eds). Symposium proceedings Feb 3-7 1987, Winnipeg, Mb. USDA Forest Service, General Technical Report RM-142.
 11. PENNAK, R.W. 1953. Fresh-water invertebrates of the United States. The Ronald Press, New York 769 pp.
 12. PUGH, R.H. 1946. Audubon land bird guide. National Audubon Society, Doubleday & Co., Garden City, New York. 312 pp.
 13. RITCHISON, G. and P.M. CAVANGH. 1992. Prey use by Eastern Screech Owls: seasonal variation in central Kentucky and a review of previous studies. *J. of Raptor Res.* 26:66-73.
 14. ROBBINS, C.S., B. BRUNN and H.S. ZIM. 1983. A guide to field identification. Birds of North America. Golden Press, New York.
 15. SOPER, J.D. 1953. The birds of Riding Mountain National Park, Manitoba, Canada. Wildlife Management Bull. Series 2 No. 6, Ottawa.
 16. VOOUS, K.H. 1988. Owls of the northern hemisphere. Collins Ltd., London. 320 pp.



The raging monster upon the land is population growth. In its presence, sustainability is but a fragile theoretical construct. To say, as many do, that the difficulties of nations are not due to people but to poor ideology or land-use management is sophistic. If Bangladesh had 10 million inhabitants instead of 115 million, its impoverished people could live on prosperous farms away from the dangerous floodplains midst a natural and stable upland environment. It is also sophistic to point to the Netherlands and Japan, as many commentators incredibly still do, as models of densely populated but prosperous societies, Both are highly specialized industrial nations dependent on massive imports of natural resources from the rest of the world. If all the nations held the same number of people per square kilometer, they would converge in quality of life to Bangladesh rather than to the Netherlands and Japan, and their irreplaceable natural resources would soon join the seven wonders of the world as scattered vestiges of an ancient history. Wilson, E.O. 1992. The diversity of life. W.W. Norton and Company, New York. 424 pp.

NOTES AND LETTERS

"TRUCK" SWALLOW, "TRACTOR" WREN

Fairly common birds to most of us. The names suggest that we should find these feathered friends nesting in a farmyard. In a barn. In a house. Quite simple. What about "Truck" Swallow and "Tractor" Wren? Seeing birds as we go about our farm work is one of the joys of the occupation. This past summer (1995) some unusual occurrences added "amazing" to the list of adjectives that describe birds.

Every year, after the seeding is done, the summerfallow tilled, and the spraying completed, we usually have a few days to haul some grain to the elevator. On this occasion the first load was loaded and ready to go when I decided to make one last inspection: the tires. As I walked around the truck I noticed that a barn swallow flew out from underneath. There are usually a few Barn Swallows around, nothing unusual. I had seen the swallows fly out from under the truck a day or two previously. I said to my father, "Why would those swallows be roosting under the box of the truck?" I thought perhaps they were getting drops of water as the rain drained out of the box. Dad said, "Maybe they have a nest under there." I thought, wouldn't that be great. They build a nest in a truck that is about to make twenty 16-mile trips to the elevator. Dad suggested I look under the box when I had it raised up in the elevator. So, away I went on my inaugural trip.

At the elevator, you raise the box with hydraulic power, emptying the grain into a pit. Once the box was raised I could clearly see a nest,

your usual Barn Swallow nest made out of mud and small stalks of grass or branches, tucked away in a neat little corner of the truck box infrastructure. After the grain had run out I said to the elevator operator, "I see there is a swallow nest under the box of the truck." We walked around to the passenger side to have a closer look. He could plainly see the nest and said to me, "You want me to tear that nest out of there!" "Well, no, I think we'll leave it and see what happens," I replied. I would never destroy a nest without a very good reason. So I left it. I put the box down and started off for the farm and another load.

As I drove back to the farm over the eight miles of gravel road, I wondered if there were any eggs in the nest. Would the parents return to the nest? Once back at the farm I got a mirror and looked into the nest. There were four eggs. We continued loading the wheat from the grain bin into the truck. Over the next few days and several trips to town we made sure that the swallows followed us as we moved from bin to bin. Always parking the truck in the yard overnight.

During the next three weeks the swallows entertained us with their perseverance and adaptability. Each time the truck returned to the yard they would only be a few seconds landing on the nest after the truck stopped. In fact, Dad, who usually waited at the farm while I went to town, was able to watch the adult swallows' habits during the period when the truck was gone. It usually took an hour to get back. The adults would follow the truck through the yard as it went up the lane to the



"Who Dat?" reproduced from the graphite original by Saskatchewan artist Dennet Woodland.

main road. Never leaving the yard. When the truck was gone they would fly in their unique patterns catching insects but just flying here and there. As the truck approached the yard the swallows would start to fly in closer proximity to the spot where they thought their nest on wheels should stop. Could they hear that truck coming? Once the truck turned in the lane the swallows would meet it and follow it to its stopping place. In a matter of seconds, and sometimes even before the truck stopped, they would be inspecting their nest. This continued for several days but now it was time to haul grain from a bin two miles away from the yard. What would happen?

I knew that I would have to return the truck to the yard at night but how would they react to being separated from their nest for at least five hours? The day was a good summer day and fairly warm so I wasn't concerned about the eggs getting cold, but what if something should happen that I couldn't return the truck to the yard. I needed to make three trips to town. I had few options. Away I went, swallows following me up the lane.

Once again they stayed in the yard. The day progressed favourably and I was able to make the trips with no trouble, staying in town for lunch. The truck was away from the yard for most of the day. Upon my return in the late afternoon the swallows greeted me as I drove down the lane. I parked the truck for the day and got out to see if the anxious adults would return to the nest. No problem. They were sitting on the nest before I could get out of the truck and walk around to the other side to see if they were there.

I made a conscious effort to haul most of the grain before the eggs turned into little birds but, not knowing exactly how long the eggs had been there, I did have to make a couple of trips in late July with little birds on board. The truck remained parked the rest of the time, although we moved it from time to time in the yard. We kept a close eye on the developing birds. The parents were busy each day catching insects and swooping into the nest to feed their family. By early August the young birds were getting quite big and had filled the nest. It would only be a few

days before they would be ready to leave the nest. I took a couple of pictures and continued to look in at them now and then.

On a rainy, cold morning I arrived at the farm to check on some things and I stopped near the grain truck. The adult swallows seemed to be very agitated, even more than when the truck was being used for hauling. Upon close examination I noticed there were some dark spots on the grass. I went over and found the four little swallows lying on the ground. They were alive but unable to fly. Crawling around on my hands and knees I was able to gather them up and put them back in the nest, the parents swooping down at me all the while. I would get three in and go for the fourth when they would all jump out again. Finally after three or four attempts I managed to get all back home. Things seemed to settle down then. I wondered why the young jumped out of the nest. I assumed that they were chased off the nest by some other bird. I waited for a while to see if they would stay in the nest. Things seemed normal. A single swallow was flying into the nest and then out again. Then two adult swallows came swooping in, chasing this want-to-be parent away. I suspect this third swallow had disturbed the nest and evicted the young swallows before I arrived. I was not sure how long the young birds had been on the ground. They were lucky an owl, magpie, or crow didn't happen along.

About a week later the young birds left the nest and started earning their pilot's licenses, landing anywhere and everywhere. We saw them several times, all perched in a row. I was disappointed that there were only three young birds in the row. Later I discovered that one had fallen out of the nest when I wasn't there to res-

cue it. The family continued to fly their circuits above the yard and stayed until the first part of September. Then one day the swallows were gone. I hope they make it back next year. I'll encourage them to pick a more suitable site.

While hauling grain we needed to use an old tractor that was parked in a coulee about a mile from home. It had been parked at the edge of a grass slough near a bluff of willow, aspen poplar, and chokecherry trees since May when we used it for picking rocks. The coulee setting provided a great place for birds.

I could hear a House Wren singing in the bluff as I climbed up on the tractor to start it. Dad drove it home and parked it in the yard. After lunch, while we were repairing a rod-weeder, I kept hearing what I thought were little birds chirping, perhaps House Sparrows. I moved the old tractor and unhooked the rockpicker in preparation to use the tractor for running a bin sweep. I could hear those birds chirping again. I continued to prepare for the job ahead. Later, as I approached the old tractor I could hear birds chirping again. Where was this chorus coming from? I stood silently near the tractor. It took only a minute for the young birds to begin chirping. The noises were originating from under the seat of the tractor. I looked in but could not see much but a lot of dry little sticks, a wren nest no doubt. And there were hungry young birds in the nest. The tractor would have to be driven back to the coulee in the hopes that the parents would return to the nest. I measured the fuel and headed south to the coulee. I hoped that I would be able to wait long enough to see the reunion but the mosquitoes were buzzing and biting. I would have to return.

A couple of days later I walked over to the old tractor in the coulee. I could see the adult wren scurrying among the branches of a nearby willow tree. It was continually chattering and scolding. I didn't see it fly over to the tractor but thought this was a good sign. A week or so later another visit to the tractor revealed three or four wrens flitting among the poplar trees. I took this to mean that the parents had found the tractor again after its six-hour absence and successfully nurtured the young birds.

- *Brian McArton*, Box 73, Dilke, SK. S0G 1C0

A POSSIBLE SIGHTING OF AN ESKIMO CURLEW

On 20 May 1996 near Kipling, Saskatchewan, Boyd Metzler and I flushed a large shorebird from a summer fallow field about 200 m from Kipling Marsh. The bird was instantly recognized as a curlew species from the down-turned bill. It was not a Long-billed Curlew as the bill was too short. I had never seen an Eskimo Curlew or a Whimbrel, but I knew it was one or the other. The bird landed on a spit leading out into the marsh/lake. The conditions for observing the bird were excellent. The sky was clear with a moderate breeze. The bird was about 70 metres away from us and the sun was at our backs when looking at the bird. We observed the bird from 6:30-7:30 p.m. from our vehicle using a 16-36 power spotting scope.

The overall plumage was grayish brown. After the bird landed, it adjusted its wings, lifting them above its body exposing the wing lining. The lining was reddish-brown. The bird had a faint eye line. I had a good view of the crown when the bird

faced us. It was darker than the rest of the body plumage with no discernible stripe down the centre of the head. The bill had a gentle down curve with a slight kink near the end.

I could not estimate the size of the bird, as it was sitting by itself with no other shorebirds near by. The bill seemed thicker and somewhat longer than what our field guides described as an Eskimo Curlew bill. Unfortunately, at the time, I was not aware of other field marks such as markings on the primaries. Boyd felt it was a Whimbrel based on the bill shape and length. However he didn't observe the wing linings or the crown patch.

Unfortunately the bird flew after 30 minutes and neither of us were able to get a second look at the wing lining and primaries. This bird had some characteristics described for an Eskimo Curlew but further study was needed to make a positive identification.

The next day Boyd and I returned to the same location. It was overcast and drizzling. We couldn't see any birds as we drove along the field where we flushed the curlew the previous day. Suddenly from the summer fallow field three curlews took flight. The birds were greyish. I didn't have time to get a good look through my binoculars but I rolled down the truck window and shut off the engine. I heard one of the birds calling "tu, tu, tu, tu, tu" five times. Based on the song I heard and comparison to a tape of bird songs, I concluded that at least one of the birds was a Whimbrel. Since all three birds resembled each other, I assume they were all Whimbrels. The birds flew off northward and disappeared in another marshy area several kilometres away.

This area had other shorebirds. Over the two outings we counted 17 Black-bellied Plovers, 5 Ruddy Turnstones, 176 American Golden-Plovers, 1 Piping Plover, 2 American Avocets, 1 Lesser Yellowlegs, 1 Willet, 3 Spotted Sandpipers, 3 Marbled Godwits, 32 Sanderlings, 16 Semipalmated Sandpipers, 18 Pectoral Sandpipers, 5 Short-billed Dowitchers, 1 Wilson's Phalarope and 17 Red-necked Phalaropes.

- John Pollock, Box 353, Whitewood, SK.
S0G 5C0

WINTERING OF A YELLOW-RUMPED WARBLER AT LETHBRIDGE, ALBERTA

We have been very fortunate to have observed the wintering of a Yellow-rumped Warbler in our backyard in Lethbridge, Alberta from 16 December 1995 through to early March 1996. The warbler was first observed in the early morning of 16 December near one of our backyard suet feeders. We identified it as a Yellow-rumped Warbler from the pale yellow epaulet, the distinctive yellow patch on the rump of the bird and the throat near white or buff white. At 2:00 p.m. the bird was observed again in the backyard. The unofficial recorded temperature was -23°C.

Following are excerpts from our journal, the temperatures recorded are unofficial.

18 December 1995 we again noticed the warbler near one of the suet feeders in the backyard. We became concerned as to what it might eat. We mixed up some pastry using lots of lard and cooked it so that we could crumble the pastry with some fine ground suet. We sprinkled the pastry crumbs beneath the suet feeder that

the warbler had been visiting. It was not long before we noticed the warbler feeding in the area where we had scattered the pastry and ground suet. We noticed the warbler was usually seen with a small flock of House Sparrows. Recorded temperature was -23°C.

26 December 1995 the warbler was again observed in the backyard, feeding beneath the suet feeder, and in the area where we scattered pastry crumbs and ground suet. The temperature had moderated and we had not seen the warbler for some time.

5 January 1996 the weather turned very cold, we recorded the temperature to be -31°C. The Yellow-rumped Warbler was observed in the backyard feeding on and beneath the suet feeder.

8 January 1996 the weather had moderated some. We noticed the warbler feeding on small bits of suet dropped on the snow from the other birds. We also noticed that the warbler was feeding quite late in the evening after 5:30 p.m. It is usually shortly after 5:00 p.m. that we notice the Downy Woodpecker enter his sleeping cavity but the warbler fed until nearly dark.

14 January 1996 the weather turned cold again, we recorded a temperature of -25°C. The Yellow-rumped Warbler was observed feeding on the sundeck, where we normally have a small suet ball for the flickers to chase around. Small bits of suet had been scattered on the deck surface by the feeding flickers. The warbler would feed on these small pieces of loose suet. The warbler appeared to be becoming less flighty, it would tolerate us moving around in the house while it fed on



Wintering Yellow-rumped Warbler at Lethbridge

Joe Parsons

the deck surface a few metres away. When we do step out, the warbler will fly to a tree branch only 2-3 m from the deck door and give several calls but does not appear to be much concerned about our movements.

The call we found very interesting, when the temperature is extremely cold, was a simple peep. As the temperature warms during the day, or the weather has moderated, we find the simple peep becomes more of a musical chirp.

The general activity of the warbler also changes with the weather. We have noticed that when the weather moderates we do not see the warbler as often as when the weather turns cold. Also, after a snowfall the war-

bler was seen less. When the weather changed, and the temperature dropped, you could bet the warbler would be in the backyard.

19 January 1996 the warbler was observed in the backyard. We had recorded the temperature as -32°C with light snow. The warbler looks cold, it was not very active. The warbler did feed on pastry crumbs and small bits of suet but spent a lot of time just sitting fluffed up.

23 January 1996 the warbler appeared after we had not seen it for several days and several centimetres of snow had fallen. We were able to get a few pictures of it. The warbler allows us to approach to within 2 m as we go out to sprinkle suet and

pastry crumbs. We recorded the temperature at -23°C.

28 January 1996 we recorded a temperature of -35°C. We noticed the warbler in and around dried clematis vines where we have a climbing trellis. In behind the trellis, our downstairs bathroom vent exits the house. I placed my hand near the vent and noticed a fair bit of warm air was escaping through the vent even though the fan was not running. The warbler would return to this area on the trellis, and in amongst the dried vines, spending a good part of the day just sitting.

29 January 1996 we recorded the temperature to be -37°C. The warbler was observed feeding.

2 February 1996 we recorded a temperature of -40°C. The warbler was feeding on small bits of suet dropped beneath the suet feeder.

We went on a short vacation to try and rid ourselves of some of the cold weather. We had sprinkled an abundance of ground suet and pastry crumbs for the bird if it managed to survive through this cold spell. We returned 27 February 1996. At daylight we checked the backyard to see if we could see the warbler and if it had survived. Sure enough, there it was feeding. It was not feeding near the house suet feeder as before, we have a second suet feeder located on a transplanted stump at the far end of the yard. This area is fairly well protected from the wind by a medium-sized spruce tree. The warbler was spending most of its time in the spruce trees. The warbler's feeding habits had changed also, we observed the bird feeding more like a warbler. A flicker was feeding on the suet feeder, and the warbler was perched a metre or so away. When a

small piece of suet fell from the feeder loosened by the flicker, the warbler darted out and caught the small piece of suet before it hit the ground, the warbler would return to the perch and sit. After the flicker had left, the warbler clung to the stump and fed on loosened pieces of suet. We recorded the temperature at -21°C.

4 March 1996 temperature -15°C. The warbler was observed in the backyard. We began to notice a change in the warbler's colouration. Previously we had noticed the throat was very light near white or buff white. We are noticing now that the throat is starting to take on a yellow hue. We also notice on the side of the bird, the streaks are becoming darker, and the yellow is becoming brighter.

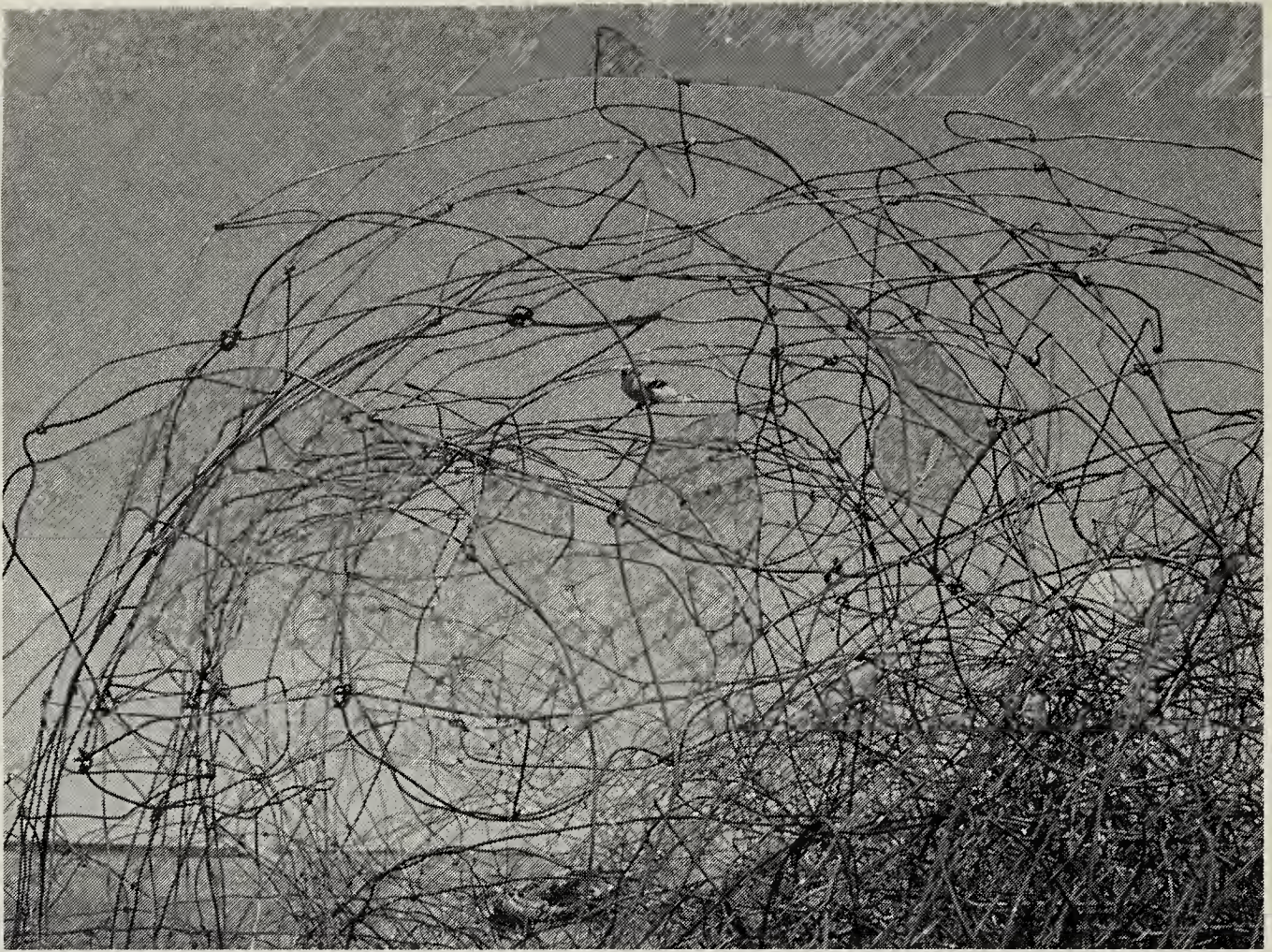
16 March 1996, we have not see the warbler in nearly two weeks. The weather has warmed. American Robins are singing their territorial song.

- Evelyn and Joe Parsons, 1701 Ashgrove Road, Lethbridge, AB. T1K 3M3

AN UNUSUAL LOGGERHEAD SHRIKE NEST LOCATION

On 3 July 1996 I was conducting a Loggerhead Shrike survey in a 16 mi² block for the Canadian Wildlife Service east of the town of Cessford. While glassing from high ground for likely Loggerhead Shrike habitat I noticed, approximately 1.5 miles away, what appeared to be a clump of shrub in the predominantly grazed mixed grass prairie landscape. Since a vehicle trail led past it I decided to drive down for a look in the hope of finding it occupied by shrikes.

To my surprise it turned out not to



Loggerhead Shrike nest site in wire

H. Kiliaan

be a clump of shrub but a huge pile of discarded, rusty chain link fencing. As I approached I noticed two adult and four fledgling Loggerhead Shrikes perched all through the pile. While inspecting it I discovered their nest deep inside the wire tangle. It was down so far that I could not reach it with my hand and an attempt to photograph it failed. Although from a human aesthetical perspective it was a definite eyesore from the Loggerhead Shrike perspective, the pile of rusty wire supplied an acceptable nest location. A virtual fortress, safe from most predators except perhaps bull snakes and weasels. The precise location was UTM 12U 462159 5649734.

I was rather amused since we often stress that Loggerhead Shrikes are highly selective in choosing their nest locations. Here in Alberta shrikes usually nest in isolated willow or thorny buffaloberry shrubs or at

the outer perimeter of larger shrub clumps or caragana plantings (89%). Other nest sites are in poplar, box elder, chokecherry, Japanese elm, wolfwillow, lilac, wild rose and tumbleweed accumulations.^{1,2} This is possibly the first observation of a shrike nest in an "artificial" structure. One of the joys and challenges of biology seems to be that every time we think we have our study subjects figured out, they manage to confound us once more.

1. COLLISTER, D.M. 1994. Breeding ecology and habitat preservation of the Loggerhead Shrike (*Lanius ludovicianus excubitorides*) in southeastern Alberta. Master's Degree Project, University of Calgary. 161 pp.
2. KILIAAN, H.P.L. 1993. Alberta Loggerhead Shrike fieldwork 1993. Unpublished report. Canadian Wildlife Service, Edmonton. 9 pp.

- Hendrik P.L. Kiliaan, Canadian Wildlife Service, 4999 - 98th Avenue, Edmonton, AB.T6B 2X3

NORTHERN BREEDING OF AMERICAN AVOCET

My first sighting of American Avocets in our area was on 23 May 1993. Eight of them were feeding in shallow water beside the road where it crosses a large slough, six miles north and three miles west of Paddockwood, Saskatchewan. I will never forget their grace and beauty, their striking black and white plumage set off by their pinkish tan head and neck and blue legs. While feeding they went from side to side just below the water surface.

I went back a few times to photograph these beauties. Several neighbours stopped when they saw my tripod and some object on it pointed at the birds — but were reassured to find it was my camera and telephoto lens and not a gun. Once, four of the avocets flew close to me, landed on the road and walked towards me, variously jumping over each other,

reminding me of a sandhill crane ritual. I wonder what was their intent? Curiosity?

The highlight of the season was on an evening well into June when we saw an adult bird sitting on a muskrat push-up trying to shield two or three young under its wings. This was the only time we saw the young birds but a breeding record was thereby confirmed, the farthest north for this longitude. Late in the summer we saw about thirty avocets resting on the far side of the slough, presumably gathering for their southward migration. They have not been seen in our area since.

Acknowledgement I wish to thank Dr. Stuart Houston for his encouragement and for putting this note on disk.

- John J. Dinius, Box 27, Paddockwood, SK. S0J 1J0



American Avocet

John Dinius

A REAL BIRD HOUSE

In the spring of 1995 a pair of Northern Flickers arrived in the South Saskatchewan River valley north of Leader. They toured the Leaning Tree Guest Ranch owned and operated by Paul and Vivian Letkeman and selected a cosy cabin nestled beside large cottonwood poplars. The flickers proceeded to make their own private entranceway at the rear of the cabin, in the northwest corner, 5 ft. above the ground.

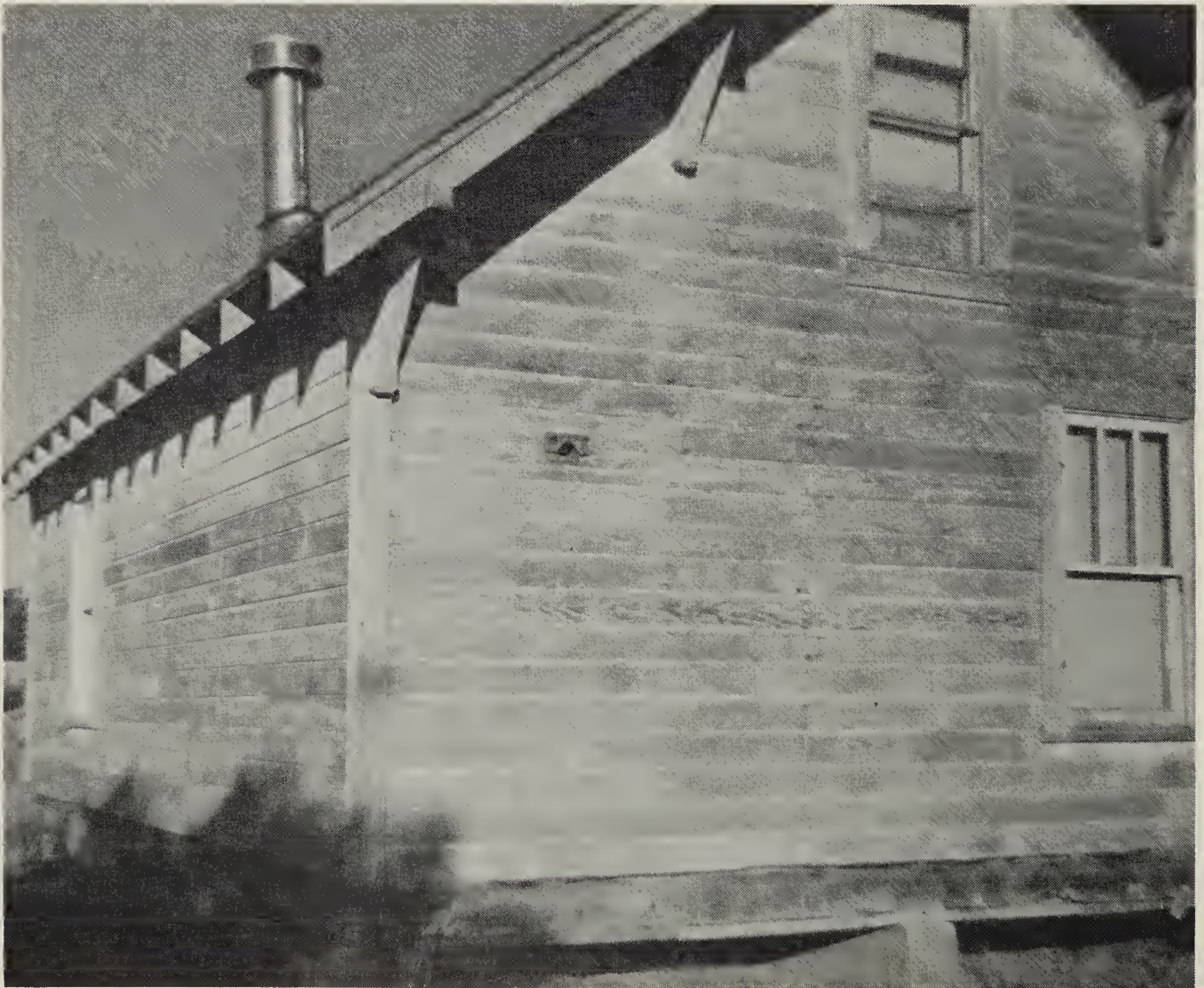
During the summer they could be seen coming and going. Happy chirping and twittering could be heard as they raised a family of young flickers in the nest site situated between the outer and inner walls of the cabin. After the flicker family had departed in the fall, Paul

nailed a thick piece of board over the nest hole.

When the flickers arrived back at the Leaning Tree in the spring of 1996, they were pleased to see that Mr. Letkeman had taken such good care of their cabin by closing the entrance hole to keep it clean and dry. They proceeded to re-open the cabin for the summer by drilling through that thick board in the same hole as used in 1995. Happy chirping was once again heard from amid the walls of the cabin by the cottonwoods.

Acknowledgement Thanks to Paul and Vivian Letkeman for sharing this interesting story with me.

- Daisy D. Meyers, Box 218, Leader, SK.
S0N 1H0



*Northern Flicker nest hole in tourist cabin on Leaning Tree Guest Ranch
northeast of Leader, SK.*

Daisy D. Meyers

**THE BIRDS OF LAC LA RONGE
PROVINCIAL PARK, SUMMER
1995**

The authors were stationed in La Ronge from 23 May to 31 July 1995 as part of a project to study the effects of BTK (*Bacillus thuringiensis kurstaki*) insecticide on forest songbirds for Dr. Keith Hobson of the Canadian Wildlife Service. BTK is widely used in forest management to control outbreaks of spruce budworm (*Chrysoneura fumiferana*),¹ but its impact on other forest organisms is poorly understood. This project was

one component of a joint project with Saskatchewan Environment and Resource Management.

The majority of the work was performed in the west-central region of Lac La Ronge Provincial Park along Provincial Highway 102 north of La Ronge and Provincial Road 915 to Stanley Mission. Some censuses were also conducted along Provincial Highway 102 to the northern park boundary, along Nemeiben Lake road, and in the Napatak area of the southern portion of the park. A map of the park is provided in Figure 1.

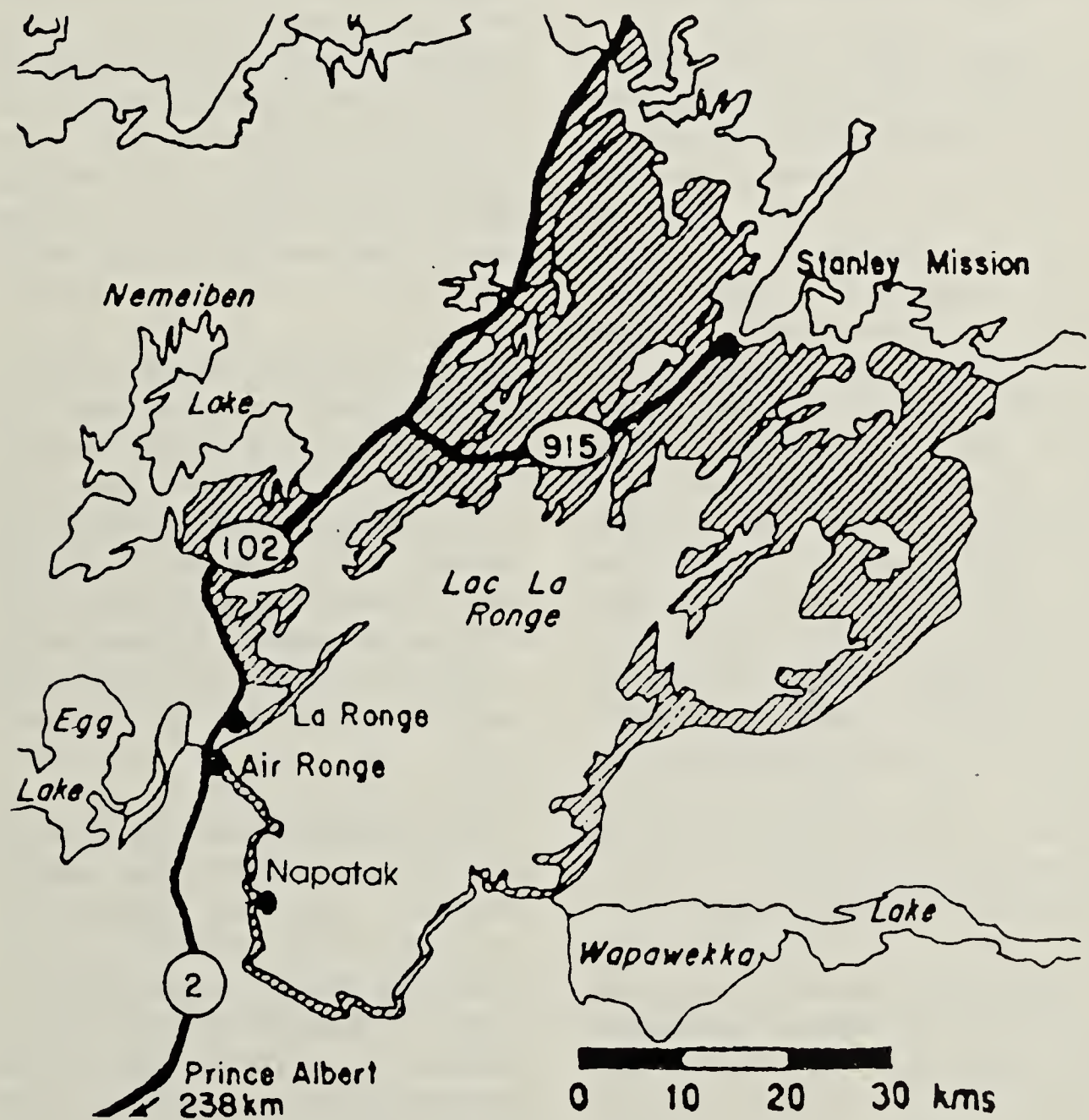


Figure 1. Map of Lac La Ronge Provincial Park.

Most records of forest passerines were recorded via 10-minute point-count surveys conducted during the first four hours of daylight in mature upland mixed-wood forest from early June through to early July. For the remainder of July, other records were obtained via observations of family groups and multi-species foraging flocks. Because of the nature of this project, our observations focussed on neotropical migrant songbirds. This bias resulted in comparatively fewer data being collected on non-passerine species. Therefore most non-passerines were recorded through incidental observations.

We found a total of 126 species of birds within the park boundaries. Of these, 47 were confirmed as breeding species, 68 were designated suspected breeding species, 7 as migrants, 3 as unknown, and 1 as accidental. Breeding species were determined by the location of nests, or by observing fledglings, adults carrying food or adults feeding fledglings. Suspected breeding species were determined by the presence of singing male birds or adults exhibiting territorial behaviour. Migrant species are those that occur in the area during spring and fall migration, but are not believed to breed. Those that could not be distinguished as to whether they were breeding or in migration were designated as unknown. One accidental species was designated based on its occurrence well outside its normal range.

With a few exceptions, most of the species found were not unexpected. This region represents the northern range limit for several species.² These include Black-and-White, Black-throated Green, Chestnut-sided, Blackburnian, Connecticut and Canada Warblers as well as American Redstart and American

Goldfinch. Most observations of these species were made in the southern portion of the park that is not on the Precambrian Shield. Some of these were found to be rare with fewer than five observations made. A single male Black-throated Green Warbler singing on territory on each of several visits near Napatak from early June to mid-July was presumed to be the same individual and represented our only record of this species. A Blackburnian Warbler was observed carrying food on 18 July in the Napatak area. A dead bird (hatch year male based on an unossified skull and plumage characteristics) was found beneath a cabin window at Wadin Bay resort on 28 July. This specimen was donated to the Royal Saskatchewan Museum. In early June, single male Chestnut-sided and Connecticut Warblers were located singing in the vicinity of the junction of Provincial Highway 102 and Provincial Road 915 but were not observed again. A female Canada Warbler was observed carrying food on 18 July near Napatak. American Goldfinches were observed several times in the vicinity of feeders in La Ronge. Black-and-White Warblers and American Redstarts were found to be more widely distributed and more common with five and 10 records of each respectively.

Some species were notably common. The Ovenbird, Yellow-rumped, Magnolia, Cape May, Bay-breasted and Tennessee Warblers were all commonly observed throughout the park. The local abundance of these species, especially the latter three, may have been in response to the heavy spruce budworm outbreak in the La Ronge area.

Other species fell into a variety of categories. A flock of 10 Greater

Scaup observed on 28 May were likely migrating through the area. A Barred Owl heard in the early morning of 8 June 12 km north of La Ronge was likely near the northern range limit of this species.² Observations of the Bohemian Waxwing in the northern area of the park probably represents the southern limit of its breeding range. Several more typically open-country species that were presumably in migration were found along roads and in the heliport fields at the Forest Fire Management Centre in La Ronge during the last week of May. These were Horned Lark, American Pipit, and Lapland Longspur. The irruptive White-winged Crossbill was only recorded on two point count surveys in June but became common in mid-July. Species whose status was designated as unknown were Sandhill Crane, Mourning Dove and Vesper Sparrow.

Despite widespread concern about the northward range expansion of the Brown-headed Cowbird into forested regions of North America, only two observations were made of this species in the La Ronge vicinity during this period. However, many have been recorded at equally far north locations such as Buffalo Narrows (K. Hobson, pers. comm.). House Sparrows were conspicuously absent from the La Ronge area although Godfrey lists them occurring much farther north (Wollaston Lake, Lake Athabasca).²

Our most unusual find came on 24 May at the south end of Lac La Ronge where we (both authors, Keith Hobson, Robert Wright and Cameron Lockerbie) found a group of three American Avocets resting on the ice approximately 500 m offshore in Meeyomoot Bay. Two of the birds were resting with their bills tucked

under their wings while the third stood with its neck upright. Although these birds were obviously far off course, they appeared healthy as we studied them for approximately 15 minutes through binoculars and a spotting scope. We were able to note the characteristic black and white back, orange neck, long bluish legs and upturned bill (on the upright bird). A late spring snowstorm on the following day sent temperatures below freezing. No attempt was made to relocate these birds after the initial observation.

Single observations of three additional species, Horned Grebe, Turkey Vulture and Great Gray Owl, were made just outside of the southern park boundary. All three of these species are expected to occur within the park.

Lac La Ronge Provincial Park has very limited road access with much of it being accessible only by boat or on foot. Because of this, a complete picture of avifauna within the park is difficult to obtain. Therefore it is not surprising that little is known about bird distribution in this area. This makes assessing our findings difficult, as there is little to compare them to, although an extensive study of the nearby Besnard Lake area has confirmed the occurrence of 201 bird species.

In order to gain a more complete picture of bird distribution in Lac La Ronge Provincial Park, one of our goals is to compile and publish an official comprehensive bird checklist of this area. Since our findings alone are not sufficient to publish an official list, we need to supplement them with those of the general public. We urge anyone with unpublished bird records for Lac La Ronge Provincial Park to send them to the following as

soon as possible: Robert Wapple, Box 1153, Biggar, SK. S0K 0M0. Please supply details for any rare or unusual species. Breeding records would be especially useful. General comments on bird life in the park would also be appreciated. A preliminary list of species and their status is available from the authors. Hopefully the cooperation of Nature Saskatchewan members and other *Blue Jay* readers will aid in the publication of a park checklist in the near future. Together with the Nature Saskatchewan publication of the *Birds of The Besnard Lake Area, North-Central Saskatchewan 1968-1994* a much clearer picture of the avifauna in this region of Saskatchewan should emerge.

The authors wish to thank Karen Waters and Dr. Robert Wright of Saskatchewan Environment and Resource Management for technical assistance during our stay in La Ronge. Dr. Keith Hobson of the Canadian Wildlife Service (Saskatoon) gave us the opportunity to work in the Lac La Ronge area and reviewed this article.

1. GOVERNMENT OF CANADA. 1991. The state of Canada's environment. Ottawa, ON.
2. GODFREY, W. E. 1986. The birds of Canada, revised edition. National Museum of Canada. Ottawa, Ontario. 595 p.

- Robert D. Wapple, #6-1002 Dufferin Avenue, Saskatoon, SK. S7H 2C1 and Anthony L. Lang, #2016-5 Massey Square, East York, ON. M4C 5L6



If species composing a particular ecosystem begin to go extinct, at what point will the whole machine sputter and destabilize? We cannot be sure because the requisite natural history of most kinds of organisms does not exist, and experiments on ecosystem failure have been generally lacking. Yet think of how such an experiment *might* unfold. If we were to dismantle an ecosystem gradually, removing one species after another, the exact consequences of each step would be impossible to predict, but one general result seems certain: at some point the ecosystem would suffer a collapse. Most communities of organisms are held together by redundancies in the system. In many cases two or more ecologically similar species live in the same area, and any one can fill the niches of others extinguished, more or less. But inevitably the resiliency would be sapped, efficiency of the food webs would drop, nutrient flow would decline, and eventually one of the elements deleted would prove to be a keystone species. Its extinction would bring down other species with it, possibly so extensively as to alter the physical structure of the habitat itself. Because ecology is still a primitive science, no one is sure of the identity of most keystone species. We are accustomed to thinking of the organisms in this vital category as being large in size-sea otters, elephants, Douglas firs, coral heads-but they might as easily include any of the tiny invertebrates, algae, and microorganisms that teem in the substratum and that also possess most of its protoplasm and move the mass of nutrients. Wilson, E.O. 1992. *The diversity of life*. W.W. Norton and Company, New York. 424 pp.

ANSGAR OMAR ASCHIM 1904-1995

C. STUART HOUSTON, 863 University Drive, Saskatoon, SK. S7N 0J8

Ansgar Aschim was born on 2 August 1904 at Brandon, South Dakota. In 1912 his family homesteaded near Halvorgate, Saskatchewan, but Ansgar returned to South Dakota to attend high school. After short stints in the U.S. Army and as a railway telegrapher, he returned to Saskatchewan as a farmer, wrangler and blacksmith, and met Christina Grossehmig, the teacher at nearby Antelope Creek School. In 1931 he filed on a homestead near Candle Lake and the next year married Christie.

On the homestead they lived frugally, relying on the land, the creeks and lake for much of their food. In 1937 Ansgar began work with the Department of Natural Resources as a wireless operator, clerk, time-keeper, towerman, and timber cruiser. In winter he went on fur and fish patrols on foot, some of up to 11 days in duration. In January 1942 he purchased three dogs for \$32.40; his dog-team eased travel somewhat. In summer he went by horseback, dog-team, bicycle and canoe. The Aschims moved to Prince Albert in 1947 and in 1963 built their home in the suburban division, Greenacres, north of the city. After a visit to observe the American Smoke Jumper operation in Montana, Ansgar organized the Saskatchewan Smoke Jumpers, the first parachute force for fighting forest fires in Canada. He retired as Assistant Supervisor of Fire Control in 1969.

A subscriber to the *Blue Jay* from its earliest days, Ansgar served as President of the Saskatchewan Natural History Society (SNHS) in 1964-65; in April 1965 he signed the 33-year lease for the quarter section of land which gave the Society legal means to protect a colony of prairie dogs in the Frenchman River Valley. He also served as President of the Prince Albert Natural History Society, 1962-1966.

Ansgar and Christie were a loving, sharing couple. Their daughter, Susie Gordon, recalls that her father "shared his joys as well as the joy and happiness of others. He wept and never hid his tears. He loved people and was always available to lend an ear or a strong arm or a shoulder on which to lean for moral support." Ansgar had a strong sense of justice and a strong moral code, and always stood up for what he believed was right. He and Christie made many trips to Norway, but also visited other countries including England, Scotland, Australia, the Caribbean, the Orient and the South Pacific. Ansgar's dry sense of humour, and his love of ethnic cheeses, were evident in every one of his annual Christmas letters, received in our home over forty years. Ansgar and Christie had hordes of birds visiting their well-stocked feeder in their beautifully landscaped grounds, and Mary and I once spent a weekend there, banding Evening Grosbeaks.



Maurice Street, Ansgar Aschim, Ralph Stueck and Stuart Houston, Aschim homestead, Candle Lake, 12 June 1965 (courtesy of Susie Gordon).

Ansgar and Christie enjoyed 63 years together, sharing an interest in butterflies, moths, birds, flowers and gardening, until Christie predeceased him on 2 November 1995. Ansgar passed away soon afterwards, on 28 December. They are survived by two children, Omar (also a Past-President of the Prince Albert Natural History Society) and Susie, four grandchildren (Omar's son, Kevin, graduated in forestry), and two great granddaughters.

As reported by Betty Cruickshank in the subsequent issue of *Blue Jay*, the highlight of the SNHS summer meet at Candle Lake, 12 June 1965, was the "trek to President Aschim's

homestead in the Birch Bark Creek area. ... the beds of calypso orchids and other rarities are really out of this world! Beauty seekers trod on spongy bog and deer moss, over squirrel middens, beside honeysuckle, blueberry, bearberry, northern comandra, stemless raspberry, mertensia, orchids, and labrador tea. ... Interest reached a high pitch when a pileated woodpecker inadvertently led watchers to its nest." This homestead, the better part of 320 acres, with its unusual variety of orchids, was initially preserved as the Homestead Heritage Park, with a later name change to Homestead Heritage Forest.



NATURE LIBRARY

THE ISABEL PRIESTLY LEGACY: SASKATCHEWAN NATURAL HISTORY SOCIETY, 1949-1990

MARGARET BELCHER. 1996. *Nature Saskatchewan*, Regina. 286 pp., hard cover, \$25.

Members of Nature Saskatchewan (formerly the Saskatchewan Natural History Society) deserve a history of their organization. Since the Society has done so much on so little, even posterity deserves such a history. Now that history has been ably supplied by Margaret Belcher.

The Society and its hundreds of volunteers over the years, has not been noted for keeping all the information and records necessary to formulate its history accurately; that was far from the minds of those many people who were simply doing their best for the organization and its mission and the cause of conservation.

So the first task of anyone writing a Society history was to find the information necessary to accurately record that history. And Margaret Belcher has done just that. She has had to dig, review, dig more, and look for explanations before writing the story. She has dug up facts which even many Board members would have long forgotten, or not even known about.

This book is set up in an easy to follow fashion. Even the index, with over 650 entries, makes any item easy to find. After an outline of the predecessors to the Society (has anyone ever heard of "The Sylvan Bird Club" or "The Pasqua Avian Club"?), the book reviews the formation of the Society itself, leading to

the formal organizational decision on 24 January 1949, "a frigid winter evening."

Thereafter, our history is recorded on a year by year basis, with every year represented to 1989-1990. Each year's headings include such as Summer Meet, Publications, Awards, Annual Meetings, Resolutions, Finances, and Election of Officers. These main yearly happenings are amply supplemented by many interesting highlights of the particular year or period, such as Interpretation, Heritage Marsh, Grasslands, Briefs, and Presentations, and Gains and Losses in the Conservation Battle. She has "dug up" fascinating information. Even in the field of finances, where an annual statement reflects both the year's results in numbers, and public relations aims of the organization, she has managed to maintain consistency in comparing results.

It seems customary for book reviewers to offer some criticism of major or minor aspects of, or facts in, the book being reviewed. Too often this implies that the reviewer might have done better. This reviewer will offer no criticism, and none is deserved, even though each reader might have approached the subject in a slightly different way.

Margaret Belcher has completed the task. The history is now ours. This reviewer's analysis would suggest that all past and present members of the Society would be proud to have this publication presently on their bookshelves. And should!

Reviewed by *Jim Slimmon*, 2526 Hanover Avenue, Saskatoon, SK. S7J 1G1

ATLAS OF SASKATCHEWAN BIRDS

ALAN R. SMITH. 1996. Nature Saskatchewan, Regina. Hard cover, \$45.

I'll admit from the top that my first-hand experience with Saskatchewan birds is limited to a visit to a dry alkali lake one blazing hot summer day about 25 years ago. But after reading through the new *Atlas of Saskatchewan Birds* (hereafter the *Atlas*) by Al Smith I feel that I could find out almost anything I needed to know quickly and easily. As someone who loves maps almost as much as birds, I was looking forward with great anticipation to seeing this book, and I was not disappointed.

This is not a breeding bird atlas like the recent volumes from Alberta, Ontario, Quebec and the Maritimes. Breeding bird atlases, through a burst of frenetic activity by volunteers over a period of five years or so, attempt to provide a snapshot of the breeding season distribution of birds in a given area. In most Canadian provinces these efforts are bound to come up short, with vast areas only marginally covered or not covered at all. The *Atlas* is instead a compilation of thousands of records, historical and recent, for **all** seasons. It therefore simply provides a detailed picture of what we know about bird distribution in Saskatchewan. In this it is similar to the map section of the *Birds of British Columbia*, a four-volume work still in progress.

The 740 mapping units used in the *Atlas* are the 1:50,000 map sheets in Saskatchewan, each subtending 15 minutes of latitude and 30 minutes of longitude. Northern map sheets, as would be easily predicted, are poorly covered but that would have still been the case with a breeding bird

atlas project. Four hundred and nine species are mapped, for a total of more than 46,000 map units filled. The most widespread species was the Common Raven, recorded in 462 map sheets. Mallard was the most widely reported breeding species (400 map sheets) and Snow Bunting the most widespread wintering species (344 map sheets).

Bird atlases are difficult to design, especially those trying to pack information from all seasons onto one map. The *Atlas* gives almost every species a complete page, with large map, a key to symbols, a short but informative paragraph that adds to the information on the map, and a pen-and-ink sketch of the species. The sketches are generally very good, and clearly show that the artist knows what birds look like in the field.

I found the maps to be remarkably easy to read. The up and down triangles used for migration are intuitively interpreted as spring and fall respectively, so a simple glance at the Whimbrel map tells me that I'm much more likely to see that species in spring than fall. Items of special interest are added when available, such as lines showing historical range boundaries or population concentrations. Map sheets with historical records for a species but none in the last 30 years are indicated with clear symbols. In several cases this plainly shows recent range contractions (an obvious instance is the Greater Prairie-Chicken, but it is also shown in the Whip-poor-will and Chimney Swift maps). The only thing I didn't like about the maps was the peripheral screens, designed to show the species' status outside Saskatchewan. I found the six screens too similar, forcing me to continually compare the map with

the key to figure out what was meant. Perhaps three screens covering breeding, migration and wintering would have been adequate and easier to understand. Three overlay maps allow the reader to compare the distribution maps with coverage, map sheet numbers, and most importantly, biotic regions.

The *Atlas* has very informative introductory sections, including data sources, status categories, how to interpret the maps, the biotic regions of Saskatchewan, human history and the flora and fauna of Saskatchewan. As a non-prairie naturalist, I found the latter sections extremely useful. In the Preface, Al Smith makes a very good case for the high species diversity of Saskatchewan birds, although he may have overstated his case somewhat when he claims more breeding species in certain parts of the province than anywhere else in Canada. These areas might have 180 species as claimed, but I must stand up for my home ground in the Okanagan Valley, which according to the latest checklist has 194 breeding species, not 170 as given by Smith for the entire southern Interior of British Columbia. I also think the claim that Saskatchewan has more than 50% of the Common Poorwills and Sage Thrashers breeding in Canada is unlikely to be true, especially for the poorwills.

Several very useful appendices include the details (date, place, number, reference) of all reports of very rare birds, a gazetteer, and summaries of Christmas Bird Counts and Breeding Bird Surveys. The latter table provides information on population trends for many Saskatchewan breeding species.

The real fun for me in reading a bird atlas is in the details on the

maps. Here I learned that several species I thought were completely eastern in distribution, maybe sneaking into Manitoba, were found regularly in eastern Saskatchewan — Eastern Wood-Pewee, Yellow-throated Vireo, Black-throated Blue Warbler and Orchard Oriole are examples. And it's always surprising to see all those western mountain species — Red-naped Sapsucker and Townsend's Warbler, for instance — tucked away in the Cypress Hills.

But, as in any good bird atlas, one of its greatest contributions will be in clearly illustrating the huge gaps in knowledge that exist everywhere. Some species are extremely well known, particularly the waterfowl and raptors. The Swainson's Hawk has been confirmed as breeding in 158 map sheets, the Ferruginous Hawk in 109. The Black-capped Chickadee on the other hand, a "permanent resident throughout the province" and a species easily attracted to nest-boxes, has been confirmed as breeding in only 20 map sheets. The Dusky Flycatcher, a common summer resident in the Cypress Hills, has no recent breeding records and flycatcher nests aren't that hard to find.

In short, I think that Al Smith has produced a wonderful book — easy to use, a pleasure to read and packed with useful information. Birders from Saskatchewan now have a bible that tells them all they need to know about where birds have been found in their province, and more importantly, where they can go and what they should look for to add to the huge body of avian knowledge compiled in this atlas.

- Reviewed by *Richard J. Cannings*, 1330 East Debeck Rd., Site 11, Comp. 96, RR#1, Naramata, BC. V0H 1N0



Virginia Rail, by Alan R. Smith (reproduced from The Atlas of Saskatchewan Birds).

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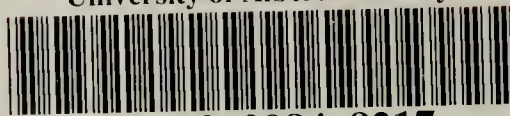
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